

# MODERN PACKAGING

May TECHNOLOGY DEPT.

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MAY 22 1945 1945

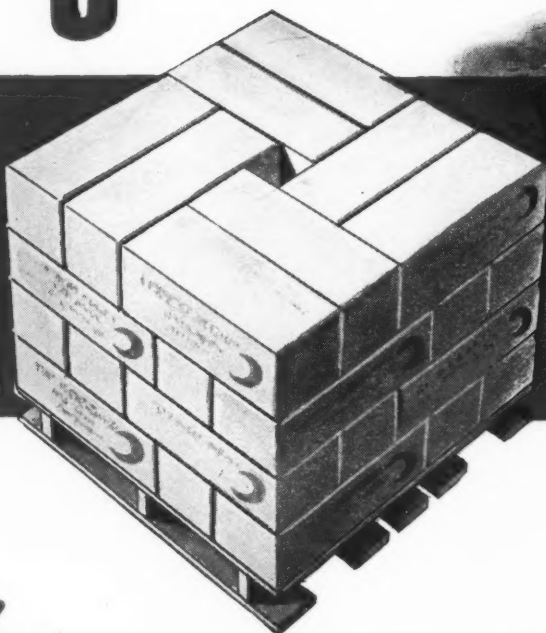
DETROIT



# Palletizing WITH ADHESIVES

## EXCLUSIVE!

PALLET ADHESIVE # 4 was formulated in collaboration with military authorities. It is the first adhesive to be tested and approved for unitizing corrugated or solid fibre shipping containers on standard wooden pallets. Its high shear strength locks the unitized load during shipping; its low tensile strength permits easy unit separation during unloading — with a minimum of tearing that leaves the cases fit for reuse. Adhesive palletizing is now being adopted to wooden boxes.



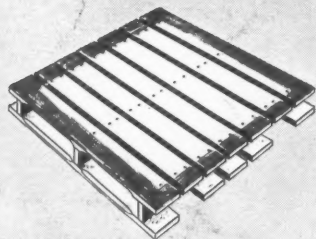
## SAVES

Steel  
Labor  
Time  
Containers

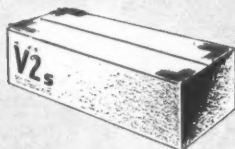
## PREVENTS

Break-up  
Damage  
Pilferage

## EASY TO APPLY



PALLET ADHESIVE # 4 is applied by brush around the perimeter of the pallet. Then the first layer of cartons is placed in position.



An L-shaped strip of adhesive is then applied to the top corners of each carton — to lock the succeeding layers in place.

## Now SPEEDS MULTIPLE-UNIT WAR DELIVERIES

All war contractors—large or small—can now make palletized shipments *whether or not* they are equipped with special tools for steel strapping and mechanical handling equipment.

A fast-setting, mold-proof, brush applied adhesive . . . National's PALLET ADHESIVE #4 . . . permits unit loading either inside the plant at the delivery conveyor — *or directly on pallets in the freight car or delivery truck.*

Domestic shipments to prime contractors equipped with fork-lift trucks — or to the home depots of the Services *need no further binding.*

Overseas shipments can be 3-strapped (instead of 6-strapped) by the Services at ports of embarkation or by specially equipped contractors.

Government specifications calling for palletized units are rapidly being extended to all contractors. The advantages of palletizing with adhesives are many: Unit loading saves time, labor, critical metal and handling equipment. Rehandling caused by load break-up is eliminated. Damage in transit is lessened. Pilfering is discouraged. And savings in container costs are made possible.

Further information is available NOW! Address: National Adhesives, 270 Madison Avenue, New York 16; 3641 So. Washtenaw Avenue, Chicago 32; 735 Battery Street, San Francisco 11, and other principal cities. In Canada: Meredith, Simmons & Company, Ltd., Toronto and Montreal.

# National

## ADHESIVES

EVERY TYPE OF ADHESIVE FOR EVERY TYPE OF ADHESION

PUBLIC LIBRARY

MAY 22 1945

DETROIT

*Producers of Metal and Molded Caps for Glass Packages*



*Phoenix Metal Cap Co., Chicago 8 and Brooklyn 18*

*Elmer Jacobs*



## COLGATE'S 22<sup>nd</sup> Redington...

—a new high in efficiency in packaging collapsible tubes

**N**OTED for outstanding efficiency in manufacturing and packaging are the modern plants of the Colgate-Palmolive-Peet Company. These plants are equipped with the *speediest, most efficient* packaging machines to meet an ever-increasing demand for Colgate's famed products.

The cartoning machine shown above (the latest of 22 Redingtons in the Colgate line) is part of a *truly unique* installation.

Redington engineers and the manufacturer of the tube filling-and-closing machine collaborated to design a *synchronized* unit for producing packages of Colgate Dental Cream. The operation is simple:

The tube is automatically filled, closed and discharged *directly* into the intake of the Redington cartoning machine . . . a carton is fed from a magazine, expanded, the tube is

inserted . . . the carton is then closed and discharged, all at a speed of *125 packages per minute*.

*There is no handling* between the two machines comprising this unit.

Colgate has been using Redington packaging machines *since 1928* . . . for various sizes of Colgate Dental Cream . . . for several sizes of Colgate and Palmolive Shaving Creams, Cashmere Bouquet Soap, Colgate and Palmolive Cup Soaps and Colgate Tooth Powder. A large battery of Redingtons wrap Crystal White Laundry Soap at the rate of *200 bars a minute*.

Yes, the Colgate-Palmolive-Peet Co. plants have *many examples* of Redington's ability to supply high speed, efficient packaging machines . . . *many examples* of Redington's ability to add special mechanical features and equipment often so vital to maximum packaging efficiency.

F. B. REDINGTON CO., (Est. 1897) 110-112 So. Sangamon St., Chicago 7, Ill.

# REDINGTON

PACKAGING MACHINES

FOR CARTONING • WRAPPING • SPECIAL PACKAGING

# MODERN PACKAGING

VOLUME 18

MAY 1945

NUMBER 9

★ ★ ★

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**COVER**—April showers bring May flowers and the delicate floral scents that are translated into perfume. This month's cover by Peter Piening, depicting a classic glass bottle against a colorful bouquet, needs few words to convey its gay, seasonal message.

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All editorial contents bearing on military subjects have been approved for publication by the Armed Services.

MODERN PACKAGING is regularly indexed in the *Industrial Arts Index*.



Member of Audit Bureau of Circulations

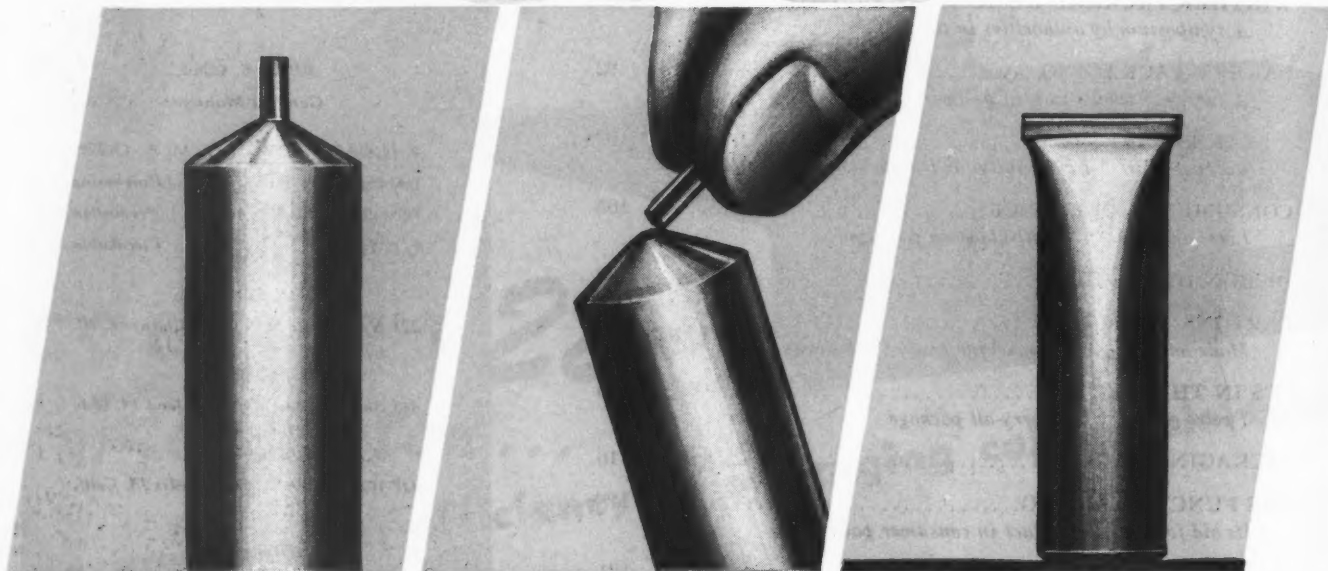
EXECUTIVE and EDITORIAL OFFICES: Chanin Bldg., 122 E. 42nd St., New York 17. WASHINGTON OFFICE: 625 Colorado Bldg., 14th & G Sts., D. C. 6

Published the 5th of each month by Breskin Publishing Company. Publication office: Twentieth and Northampton Sts., Easton, Pa. Subscription \$5.00 per year in United States; Canadian, \$5.50; foreign, \$6.00. Two-year subscription: United States, \$8.00; Canadian, \$9.00; foreign, \$10.00. All foreign subscriptions payable in United States currency or equivalent in foreign currency computed in current exchange. Price this issue, 50¢ per copy. Copyright 1945 by Breskin Publishing Company. All rights reserved including the right to reproduce this book or portion thereof in any form. Printed in U. S. A. Acceptance under the Act of June 5, 1934, at Easton, Pa. Authorized October 7, 1936.

# WIRZ *Mono-Pak*

TRADE MARK REG.

**SINGLE-USE TUBE — IDEAL SAMPLING AND DISPENSING  
UNIT FOR YOUR PEACE-TIME PRODUCTS**



**Easy to open — easy to use — safeguards flavor, consistency — assures exact dosage**

Individual portions of coffee, dehydrated soups, juices, pastes, hydroscopic powders and granular products, ointments, and toilet preparations will be more acceptable to your Peace-time markets in sanitary, convenient WIRZ Mono-Pak single-use collapsible metal tubes. Hermetically sealed, non-refillable, economical, WIRZ Mono-Pak Tube preserves your product's original freshness, purity, consistency, flavor, or scent. Prevents substitution, dispenses exact quantity. Product reaches your customer in perfect condition. Easy to open,

easy to use, WIRZ Mono-Pak Tube can be attractively decorated, but requires no labeling or capping. This unusual merchandising tube for liquids, pastes and powders should be in your Peace-time packaging and sampling plans.

While all our tube production today is going to war, we shall be glad to help with these plans. All WIRZ Tubes are practical in different sizes for a variety of products . . . with suitable linings to combat corrosion and seepage count on WIRZ Tubes to protect your product, your brand name and your markets.

*Give an extra push now — buy more War Bonds*

**A. H. WIRZ, INC.** Fourth & Cole Sts.  
CHESTER, PA.

*Established 1836*

**COLLAPSIBLE METAL TUBES • LACQUER LININGS • WAX LININGS • WESTITE CLOSURES  
• METAL SPRINKLER TOPS • HOUSEHOLD CAN SPOUTS • COMPRESSION MOLDING**

New York 17, N. Y. Chicago 4, Ill. Memphis 2, Tenn.  
30 E. 42nd St. 80 E. Jackson Blvd. Wurzburg Bros.  
Export Division—751 Drexel Bldg., Philadelphia 6, Pa.

Havana, Cuba  
Roberto Ortiz Planos

A. G. Spilker { Los Angeles 14, Calif., 1709 W. 8th St.  
(Exposition 0178)—Also Danville, Calif.



Essence required for advancement; hourly rate and overtime; West Side preferred. 11901 Madison, office 2d floor.

also setup man. critical war work. Superior rate; Awnings & Shades, 11510 Madison.

MACHINE OPERATORS: Hourly rate; night or day. Ohio Aircraft Hardware, 1549 Superior.

# WANTED

ESSENTIAL PACKAGING APPLICATIONS FOR FILMS, COATINGS AND SHEETS OF GEON

*Combinations of properties may be planned to meet specific service conditions*

FOREMAN: Practical mechanic; local machine shop; manufacturing own product; postwar security; good salary; advise in detail past 5 years experience Box 27441. number; reply confidential.

PERSONS: Hourly rate; production. Johnaton & Jen.

MILLING MACHINE. turret lathe; night experienced; hourly rate, time and h; 1975 E. 65. Earle Machine Product

MILLING MACHINE OPERATORS: perenced. for day or night work; es; tial industry: high hourly rate. Tool. Gov.

YOU can probably help yourself by helping us find packaging applications for GEON polyvinyl materials. Since the war, these relatively new raw materials have been used largely as coatings for fabrics, as electrical insulation, and in highly specialized packaging applications for military use.

Yet our prewar and current research, as well as the war performance of products made from GEON, tells us plainly that the surface has only been scratched in developing essential applications in the packaging field.

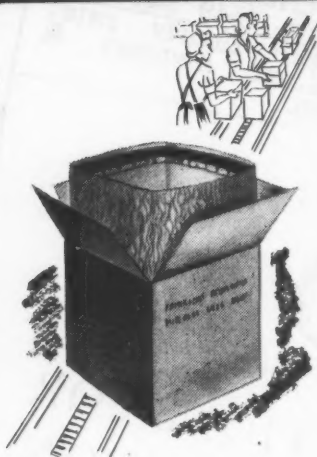
Examine the list of properties that may be had in

coatings, sheets, or films of GEON. They may be made to resist water, foods, chemicals, oils and greases, acids, alkalis, air, sunlight, aging, scuffing, mildew and many other normally destructive factors. They may be delicately or brilliantly colored clear or opaque; tasteless and non-toxic, flexible or rigid. These and other properties of GEON may be had in a wide variety of combinations, each designed to meet specific service conditions.

Currently all the GEONS are subject to allocation by the War Production Board. While we make no finished packaging materials, our development staff and laboratory facilities are available to help you work out any special problems in connection with essential packaging applications. For more complete information, write Department LL-5, Chemical Division, The B. F. Goodrich Company, 324 Rose Building, Cleveland 15, Ohio.



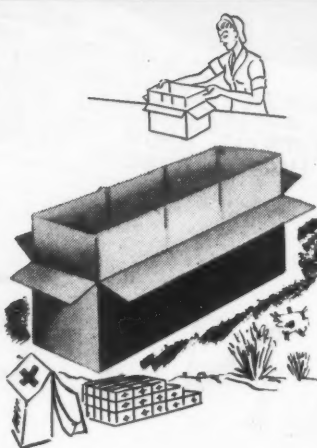
**CHEMICAL DIVISION**  
**The B. F. Goodrich Company**  
324 ROSE BUILDING • CLEVELAND 15, OHIO



### "PRESSURE - SEAL LINERS"

*Submersion-Proof*

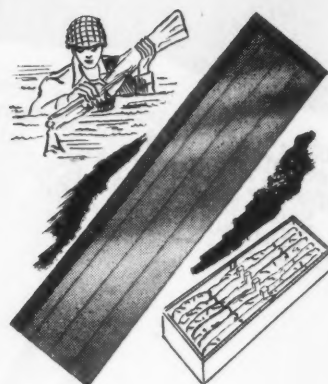
An absolutely submersion-proof liner and carton cover. Self-sealing pressure-sensitive closure top. No heat sealing equipment or other adhesive required. On a packing line they're fast—easy—positive. Economical in every way.



### "V-TYPE CASE LINERS"

*Pre-formed*

Made to individual size and stock specifications. An easy-opening style with watertight seams that shapes itself instantly to the carton, ready for contents and adhesive closure. Easy to handle. Mighty convenient to use.



### "GRADE C ORDNANCE BAGS"

*For Method I and IA Packing*

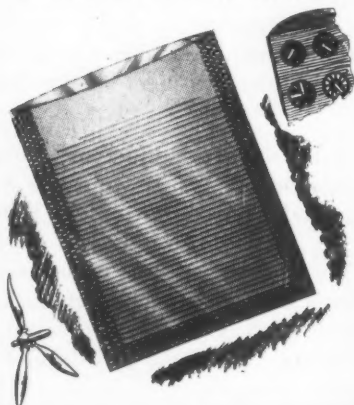
Made from non-blocking type material especially designed for bag use. Non-corrosive—greaseproof—waterproof durable—uniform construction.

# MEHL BAGS

### "LAMINATED FOIL POUCHES"

*For Method II Packing*

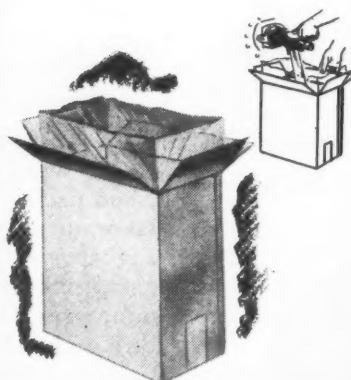
Made from aluminum foil and craft laminations plus closely controlled quality production. Mehl Foil Pouches give maximum seal strength and meet the highest requirements of known specifications. Available in a wide range of sizes. Priced for economical application.



### "PARCHMENT OR CELLOPHANE LINERS"

*For specialty purposes*

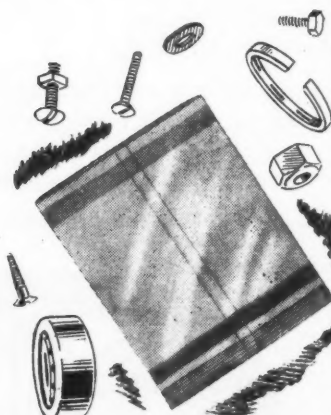
For bulk packing of shortening, lard and frozen fruits for "bag in box." Pouch or flat bag types . . . tight seal construction. Large cellophane bags also suitable for war uses, such as air-tow targets.



### "CELLOPHANE GRADE A BAGS"

*For Method I and IA Packing*

Made from approved types of cellophane suitable for Method I and IA packing. Heat sealing, durable, tight seal construction. Easy to handle. Available in wide range of sizes.



## MEHL MANUFACTURING CO.

*Division Sydney-Thomas Corp.*

2351 FERGUSON RD.

CINCINNATI 5, OHIO

277 BROADWAY, NEW YORK 7, N. Y.

WESTERN PACKAGE PRODUCTS CO., 1807 Olympic Blvd., LOS ANGELES 21, CALIF.



# preview FOR BOX AND DISPLAY PLANNERS!

SPEED VICTORY—BUY BONDS

More often than not, the first impression clinches the sale. More often than not, it takes better boxes to make that telling, selling, first impression. More often than not, Arrow boxes\* have set the pace for the presentation parade. • Right now, we're giving Uncle Sam customer-preference. But we're arrang-

ing previews for box and display planners—so that manufacturers won't be left behind when the peacetime push begins. If you want your boxes and displays in the vanguard, the last thing to do is wait for the last minute.

For boxes of tomorrow—consult ARROW today!



Arrow enters its fourth year of service in the production of boxes which hold the Purple Heart and many other medals for the heroes in our Armed Forces. And Arrow is proud that, throughout these years, it has maintained consistent leadership in serving this need of our Army and Navy.



made in metal, plastic, wood or cardboard with coverings of velvet, leather, leatherette, fabric or paper.

# Arrow

## BOXES AND DISPLAYS

ARROW MANUFACTURING COMPANY, INC., FIFTEENTH & HUDSON STREETS, HOBOKEN, NEW JERSEY

MAY • 1945

9

ANNUAL PRODUCTION OVER 34 BILLION POUNDS OF PAPER

# WHY PAPER IS S-C-A-R-C-E

Paper mills are being pushed to the limit of their productive capacity... more than 34 billion pounds a year... yet paper is harder to get than ever before.

Of course, "It's the war." We know that, and we know you do, too... but instead of talking generalities, we would like to tell you exactly where all this paper is going.

After Uncle Sam and our essential industries have ordered what they need, there is only about one pound in four left for everybody else put together. Under such circumstances, "non-essential" customers must do the best they can, with what they can get, when they can get it.

It's hard on you, and it's hard on us... and "V-E" Day won't solve the problem. But when the Final Victory is won, we know that American business and industry will do as fine a job in peace-time production as it has in time of war... and that Riegel Papers will again meet all requirements efficiently, quickly and economically.

## RIEGEL PAPERS

RIEGEL PAPER CORPORATION

342 MADISON AVENUE • NEW YORK 17, N.Y.

139

29.5%

TO GOV'T  
F. E. A.  
and  
DEFENSE  
PLANTS

43.7%

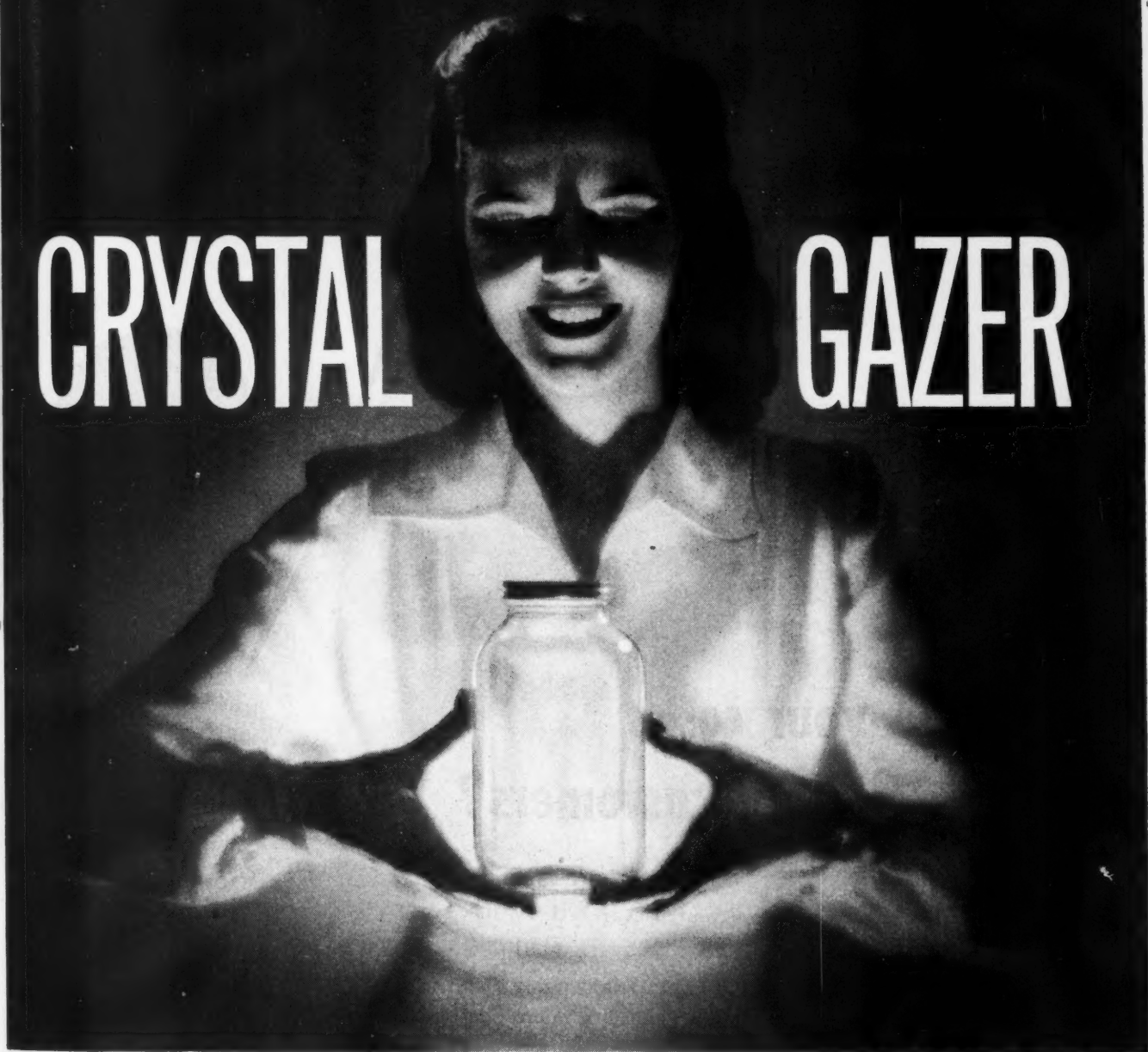
TO  
ESSENTIAL  
WAR  
ACTIVITIES  
•  
FOOD  
•  
DRUGS  
•  
PUBLIC  
SERVICE  
•  
COMMUNICATIONS  
•  
CONSTRUCTION

26.8%

ALL  
OTHER  
USERS

Credit is given to the American Paper & Pulp Association for their assistance in supplying this data. Annual production based on last 12 months. Breakdown of usage based on pulp allocations for 1st quarter, 1945.

# CRYSTAL GAZER



The future looks good to Mrs. Homemaker because she sees on grocers' shelves and on her own shelf foods that insure the strength and health of her family.

Hazel-Atlas glass containers, designed for packing efficiency, make her task a pleasant and easier one.

**HAZEL-ATLAS GLASS COMPANY, Wheeling, W. Va.**





## What do your corks tell your customers?

**D**O your corks say to your customers "Quality Merchandise" as they are drawn easily from your package? Or do they imply "cheap product" because they are inferior grade, or poorly manufactured, or because they break as they're withdrawn.

What your corks say can make a difference—a big difference—in your customers' reactions to your product. For first impressions are important, and annoyance over inferior corks can affect the salability of the products they protect.

That's why you'll want to consider the selling qualities of the corks you buy, as well as their sealing efficiency. That's why, too, for nearly 85 years leading packers throughout the world have bought their corks from Armstrong. They've learned that they can be sure of getting only top-quality, uniformly shaped, accurately graded corks from Armstrong—corks that are easy to remove and replace—corks that distinctly say "Quality."

For information about any of Armstrong's corks—straight, tapered, shell, flange-top, or embossed-top, get in touch with your nearest Armstrong representative, or write to Armstrong Cork Co., Glass and Closure Division, 5905 Prince St., Lancaster, Pa.



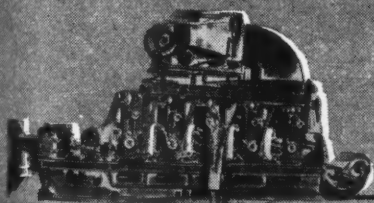
**ARMSTRONG'S  
CORKS and CAPS**

HAVE YOU  
CONSIDERED THE  
ADVANTAGES OF

# Rotogravure

## FOR PACKAGE PRINTING

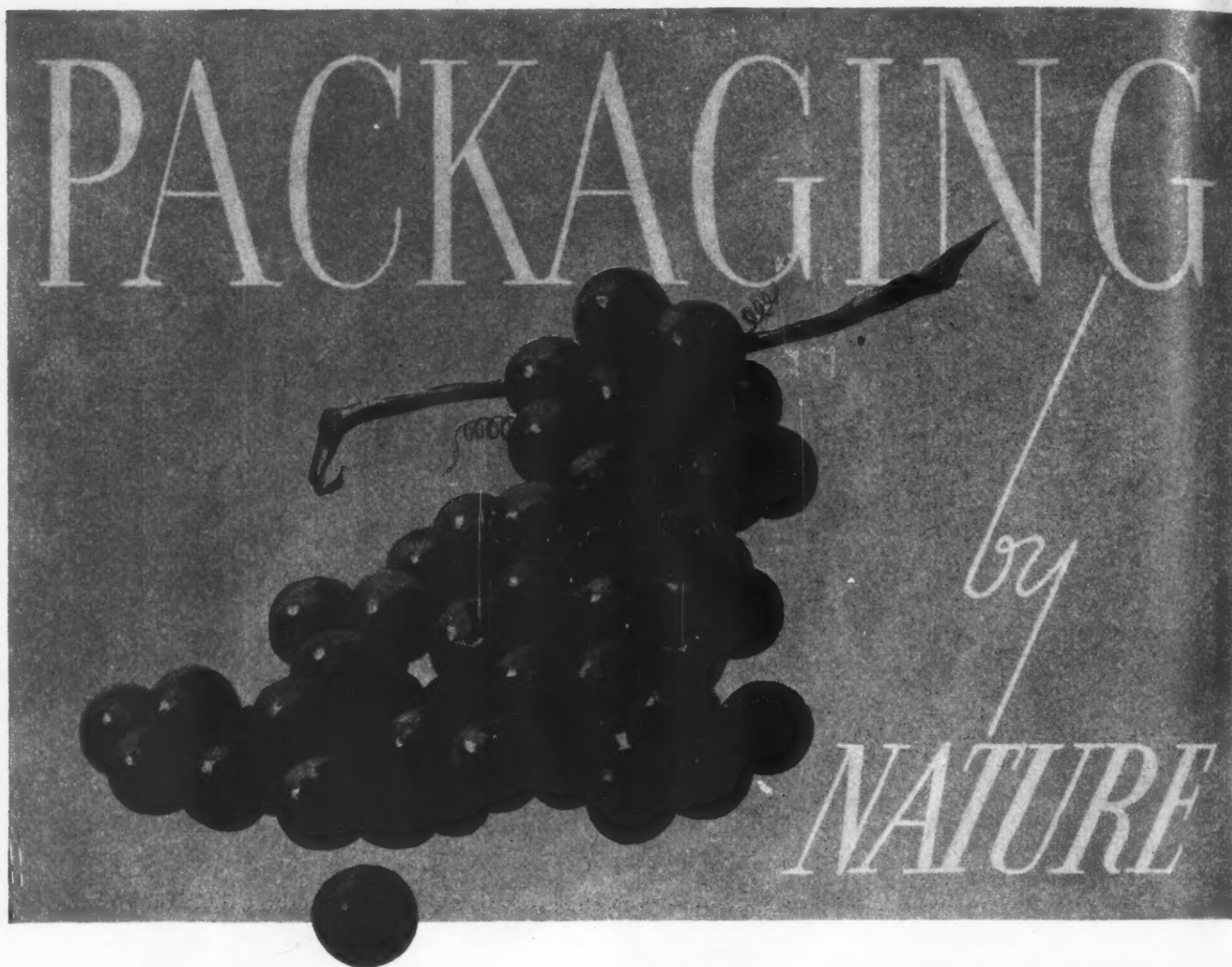
Instant drying inks make it possible to print any number of colors, one on top of another, and fabricate or rewind the printed stock without offset, in one continuous operation. A wide variety of stocks, including cellophane and glassine can be printed successfully in multi-colors. Shown on this page are but a few of the many nationally known products with labels, wraps or cartons that were printed by Champlain Rotogravure Presses. Write for booklet entitled "Advantages of Rotogravure For Package Printing."



# Champlain

COMPANY, INC.

SUBSIDIARY OF THE FRED GOAT CO., INC., EST. 1893  
636 ELEVENTH AVENUE, NEW YORK 19, N. Y.



From seedling to maturity growing things are provided by Mother Nature with a protective outer covering. But after processing —then what! The final form in which most foods are made ready for market demands man-made protection wherein Nature plays no part. Upon *protective paper* packaging depends retention of flavor, freshness and purity while contents are being guarded against infestation, shrinkage and loss of nutritional value. Long periods of storage

and shipment, variations in climate and temperature plus repeated handling require invulnerable wrappings to maintain "factory fresh" condition of edibles. The problem is real and not one to be approached haphazardly. Here at Rhineland, fifty years of specialized experience is applied in supplying food packers with high quality wrappings. All our "know how" fortified with the most modern equipment is ready for the expanded needs of postwar days.

*Many other specialized types of paper are being produced at Rhineland mills for protecting ordnance items, medical supplies, plane, tank and tractor parts, ammunition, guns and other war-time applications at home and overseas.*



Genuine Greaseproof  
Coffee Bag Papers  
Confectionery Papers

Cereal Wrapping Papers  
Laminated Greaseproof Papers  
Lard and Shortening Liners

Bakery Product Wraps  
Cracker Box Liners  
Greaseproof Innerwraps

Wax Laminated Glassine  
Opaque Label & Bag Glassine  
Packing Industry Wrappings

RHINELANDER PAPER COMPANY • MILLS AT RHINELANDER, WISCONSIN, U. S. A.



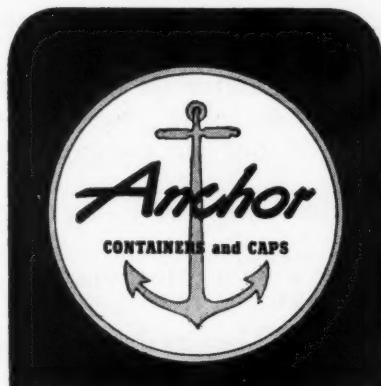
## If you've been coasting in a seller's market

★ War-born shortages have conditioned the consuming public to an acceptance of almost anything available, no matter how it's presented. But if merchandising history can be trusted, the pendulum will swing to the opposite extreme—buyers will be critical when an abundance of everything is again on the market; quality, appearance and convenience will again be the governing factors in sales.

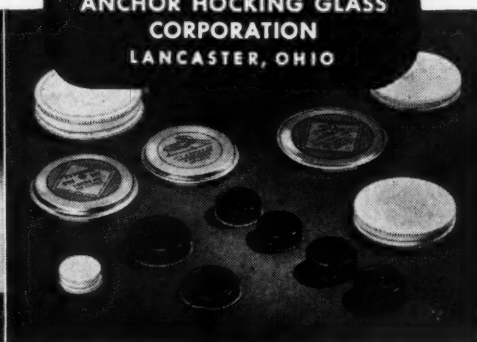
Why not plan now to improve your postwar sales position with Anchorglass packaging! In Anchorglass, the quality and color of your product will speak for itself. In Anchorglass, the eye- and buy-appeal of your product is far ahead of products that are "hidden" by other methods of packaging. In Anchorglass packages all the original flavor, taste or other qualities are preserved intact until the last bit is used.

There's a combination of light, strong Anchorglass container and matched Anchor Cap that will fit your product and production requirements perfectly. Let us show you now how to lead the field with the kind of packaging your postwar customers will want!

*Hear how Anchor Hocking is educating millions of your customers and retailers every week to the advantages of modern glass packaging—"Meet Corliss Archer" every Thursday evening, entire Coast-to-Coast Network, CBS.*



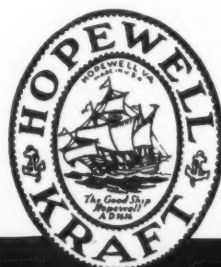
PRODUCTS OF  
**ANCHOR HOCKING GLASS  
CORPORATION**  
LANCASTER, OHIO



# ESCORT FOR A DEBUTANTE



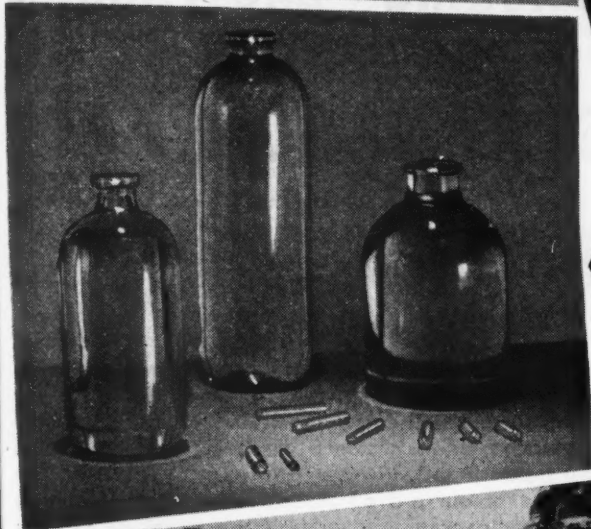
You've gone to a lot of trouble to "dress" your product for its "bow to the public." It is important that it arrives at its destination safely. That's up to the shipping container. Hummel-Ross makes the materials from which those shipping containers are manufactured. These materials have proved their toughness and their dependability not only in escorting prize packages safely from factory to counter but they are being used to pack countless materials of war for rough-and-tumble beach-head warfare. They're battle-proved for better, safer delivery of precious goods.



Originators • Creators

**HUMMEL-ROSS FIBRE CORPORATION**

Hopewell, Virginia, U. S. A.



*n to Transfusion..*

**KIMBLE**

**CAPILLARY TUBES FOR TESTING**

**DONOR and PLASMA BOTTLES and FITTINGS**

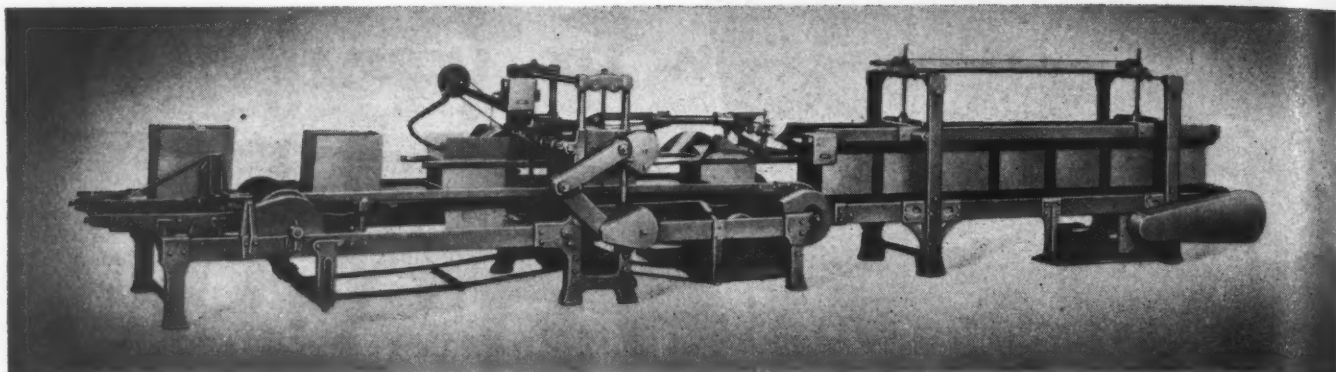
**TRANSFUSION UNIT IN USE**



Capillary tubes used by the million in donor centers; bottles of Kimble Neutraglas for collecting and processing blood and for containing plasma and distilled water; filter, observation and adapter tubes without which transfusions could not be made . . . all these Kimble items play essential parts throughout the process by which blood plasma saves lives.

*For Assurance*

• • • *The Visible Guarantee of Invisible Quality* • • •

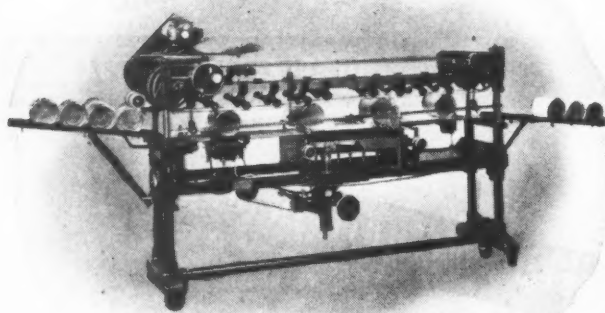


CASE SEALER

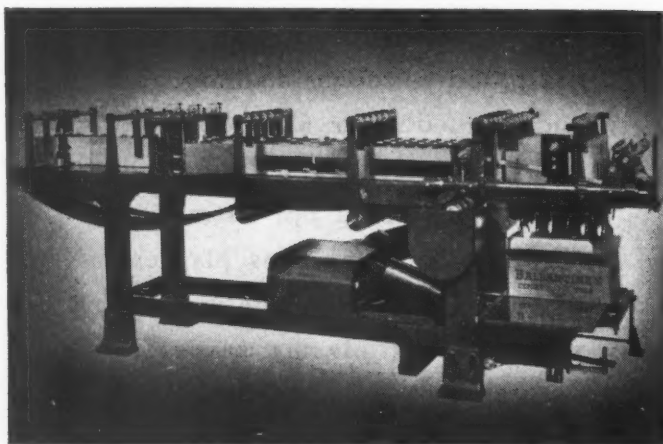
## **LABELLING—SEALING—CASE PACKING—BAG PACKING**

*ALL AROUND YOUR PACKAGING LINE*

LABELER



BOTTLE PACKER

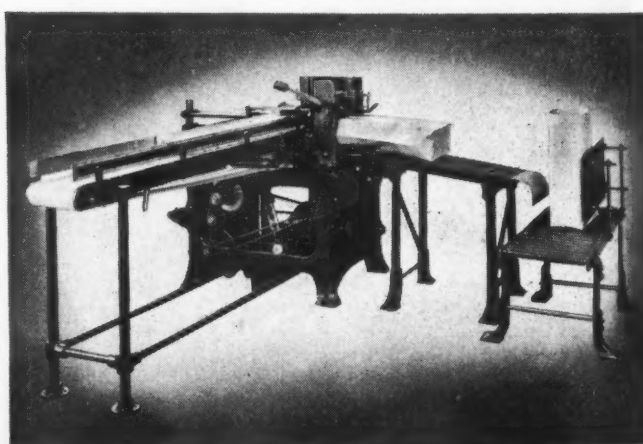


## **IT'S STANDARD-KNAPP**

We can't show you all the machines that we make. But picturing a variety, however, we have tried to indicate the versatility of our packaging machinery, design and building service.

STANDARD-KNAPP case sealers are used in most of the leading plants of most high production packaging industries, including beer, cigarettes, household products, canned soups, etc. Other STANDARD-KNAPP machines have also become standard for quality in various operations. In addition, we have constantly developed new types of equipment for specialized packaging purposes as for instance the bag packer developed for the sugar industry and shown on this page. Whether it is a variation of one of our proved machines, or a new design to handle some new packaging operation, we think we can give you the right answer.

BAG PACKER



# **STANDARD-KNAPP CORPORATION**

**MANUFACTURERS OF CASE SEALING, CASE PACKAGING, AND CAN LABELING MACHINES**

FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

570 Lexington Avenue  
NEW YORK 22, N. Y.

420 S. San Pedro Street  
LOS ANGELES 13, CALIF.

221 North LaSalle St.  
CHICAGO 1, ILL.

3224 Western Avenue  
SEATTLE 99, WASH.

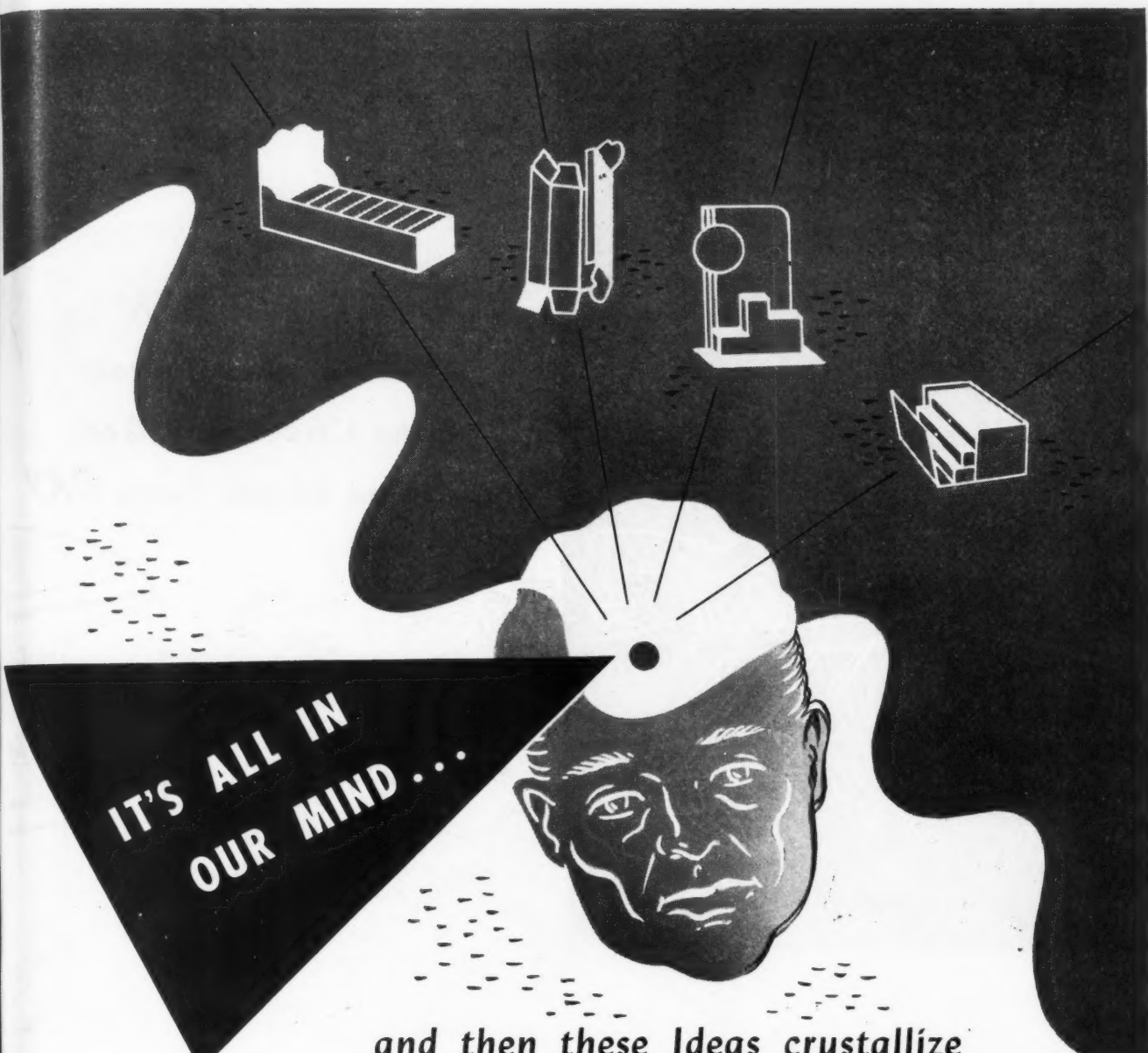
Windsor House, Victoria Street, LONDON, ENGLAND

145 Public Square  
CLEVELAND 14, OHIO

1208 S.W. Yamhill Street  
PORTLAND 5, OREGON

300 Seventh Street  
SAN FRANCISCO 3, CALIF.

Paul Brown Building  
ST. LOUIS 1, MO.



IT'S ALL IN  
OUR MIND...

*and then these Ideas crystallize  
and take concrete shape in...*

- INTRIGUING SET-UP BOXES
- CREATIVE FOLDING CARTONS
- UNUSUAL MERCHANDISE  
COUNTER DISPLAYS
- SPECIALIZED PACKAGING
- TRANSPARENT PACKAGING

"The Better the Product  
the More Important  
the PACKAGE!"

**ACME PAPER BOX COMPANY**

STATE AT SIXTIETH STREET • CHICAGO 21, ILLINOIS

CREATORS • DESIGNERS  
MANUFACTURERS

**TODAY...**

**Vital War Shipments**

*"Get there Dry"*

**with RALSTON WATERPROOF**

**CASE LINERS**



**TOMORROW...**

**These Global Tested**

**Case Liners Will Get**

**Peacetime Goods there *DRY***



**N**O stiffer test could ever be given waterproof case liners than is being given Ralston L-2 Case Liners—in protecting valuable war shipments to all parts of the globe. Shippers like them not only because they are waterproof but also because (unlike the conventional black infused L-2 sheet) they have a clean, smooth brown surface that won't scuff or rub off—and won't discolor or contaminate contents. May be glue sealed—no hot asphalt required.

Today, your war shipments deserve this superior protection. Tomorrow you won't want to be without it for peacetime shipments. Write now for details.



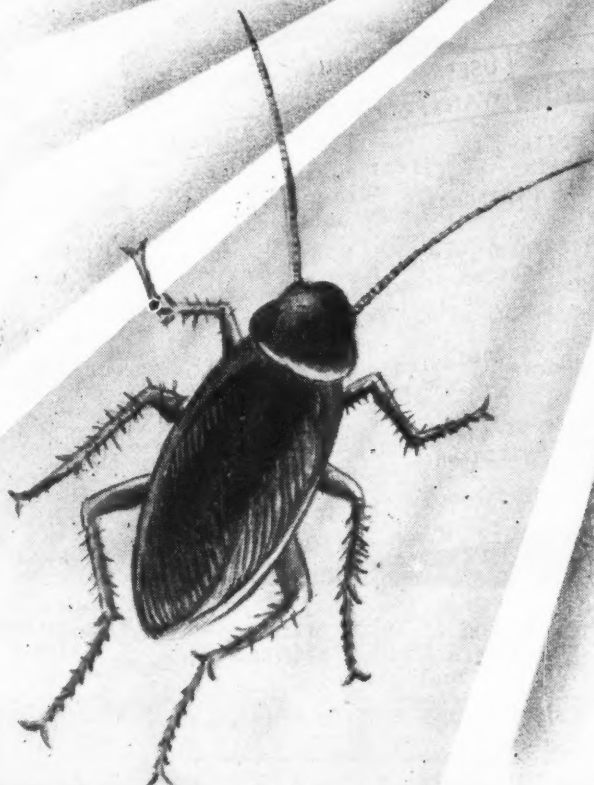
**W. Ralston & Co., Inc.**  
Niagara Falls, N. Y.

*Founded 1890 — Incorporated 1918*

Plants at Niagara Falls, New York and Old Bridge, New Jersey  
Saturated Papers—Building Papers—Reinforced Papers—Duplex Papers—Case,  
Barrel and Bag Liners—Creped Papers—Laminated Specialties  
Sales Office—220 E. 42nd Street, New York, N. Y.

# FOR EFFICIENCY IN DUSTING!

*This paper can\* is being successfully used commercially as a two in one sales package and sprayer for insecticides and many other non-abrasive powders.*



For 25 years R. C. Can has pioneered in the development of paper cans for all purposes. Now our productive capacity cannot handle new containers but our drawing boards are available to all firms interested in the use of paper cans in their post war plans.

**R.C. CAN COMPANY**  
Manufacturers of fibre cans, tubes, spools and cores  
Head Office: St. Louis, Mo.  
Branch Factories: Arlington, Texas; Rittman, Ohio; and Kansas City, Mo.  
Sales Offices: Minneapolis, New Orleans, Atlanta, Memphis, Milwaukee,  
Louisville, New York, Pittsburgh, Denver and Los Angeles.



\* Patented R. C. Can Company

# WAR OR PEACE

IMPROVEMENTS IN BOTTLE LABELLING ARE PERMANENT

WAR  
CONTRACTS

SOURCE	PRODUCT	USES
UNION PASTE CO.	C-802 GLU-WELD	BOTTLE LABELLING ADHESIVE WATERPROOF BOTTLE LABELLING

Since the Army discards all medicines in bottles from which labels have been detached, C-802 Glu-Weld offers you the opportunity to prevent waste and save lives.

★ Countless users report that this material fully meets the water-resistance requirements of MED. DEPT. TENT. SPEC. 3073-C.

★ An adhesive that will seal labels to bottles successfully on all types of machines and by hand.

SOURCE	PRODUCT	USES
UNION PASTE CO.	C-802 GLU-WELD	BOTTLE LABELLING ADHESIVE WATERPROOF BOTTLE LABELLING

Hundreds of thousands of dollars are spent designing distinctive bottles and labels. What is more logical than the assurance of a more permanent association of the two?

★ Increased protection is gained against possible misuse of products due to loss of labels bearing instructions regarding dosage, antidotes, and warnings of poison.

★ Refrigeration, steam, or accidental immersion resulting from home or laboratory use will not loosen label.

★ Improved over-all appearance of the package throughout the lifetime of the contents should result in more resale.

CIVILIAN  
USE

- PENICILLIN PLASMA •
- SERUM ETHER •
- DISINFECTANT AMPULES •
- IODINE SALVE •
- ASPIRIN NOSE DROPS •
- VITAMINS LIQUORS •

GLU-WELD WATER-RESISTANT ADHESIVES • FLEXIBLE GLUES • STRIPPING GLUES • TRANSPARENT FILM ADHESIVES • BOOKBINDING ADHESIVES

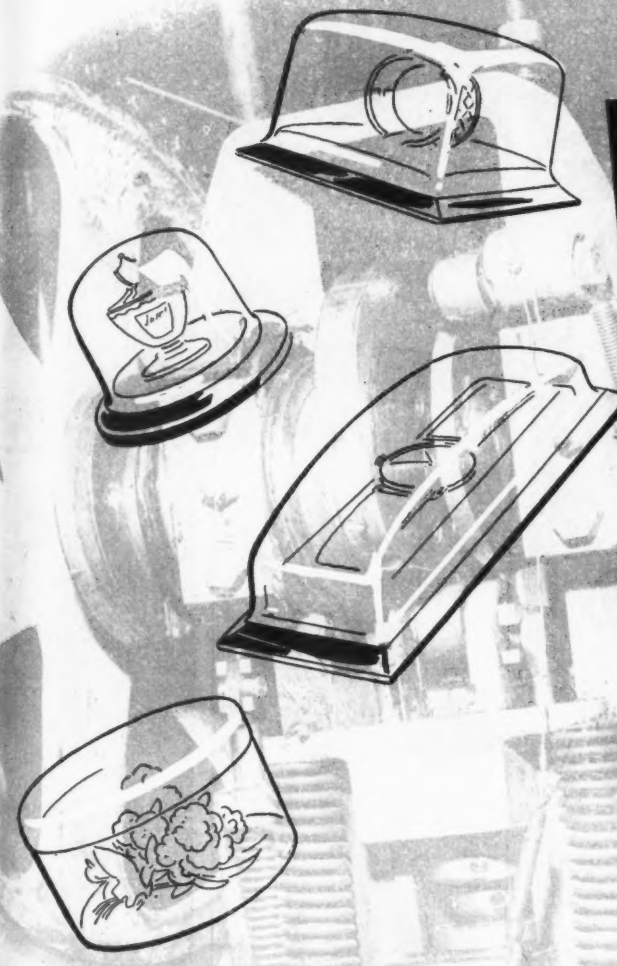


## UNION PASTE COMPANY

QUALITY ADHESIVES SINCE 1866  
1605 HYDE PARK AVENUE - HYDE PARK, MASS.



CASE, BAG AND CARTON SEALING GLUES • LABELLING ADHESIVES • LAMINATING ADHESIVES FOR FILMS, PAPERS AND CLOTHS



*Celanese Announces*

## A NEW FULLY AUTOMATIC PLASTIC FORMING MACHINE

*That will cut production costs  
and open up new markets  
for drawn transparent  
plastic packaging*

TODAY, these Celanese-developed plastic-forming machines are aimed right at the Japs—turning out BY THE MILLIONS drawn plastic components for M-69 fire bombs—a production marathon no other machines can match.

Tomorrow, these Celanese-developed machines promise to make postwar packaging history. Operating on an entirely new principle, they permit the fully automatic drawing of plastics at speeds comparable to metal drawing—yet the quality of work turned out can be duplicated only by slow, hand operated presses. In addition, four to six machines can be tended by one operator! This means that production per operator is ten to twenty times greater than hand operated presses.

Leaders in the packaging industry who have seen these machines in action predict enormously expanded markets for all types of drawn plastic parts

# LUMARITH\*

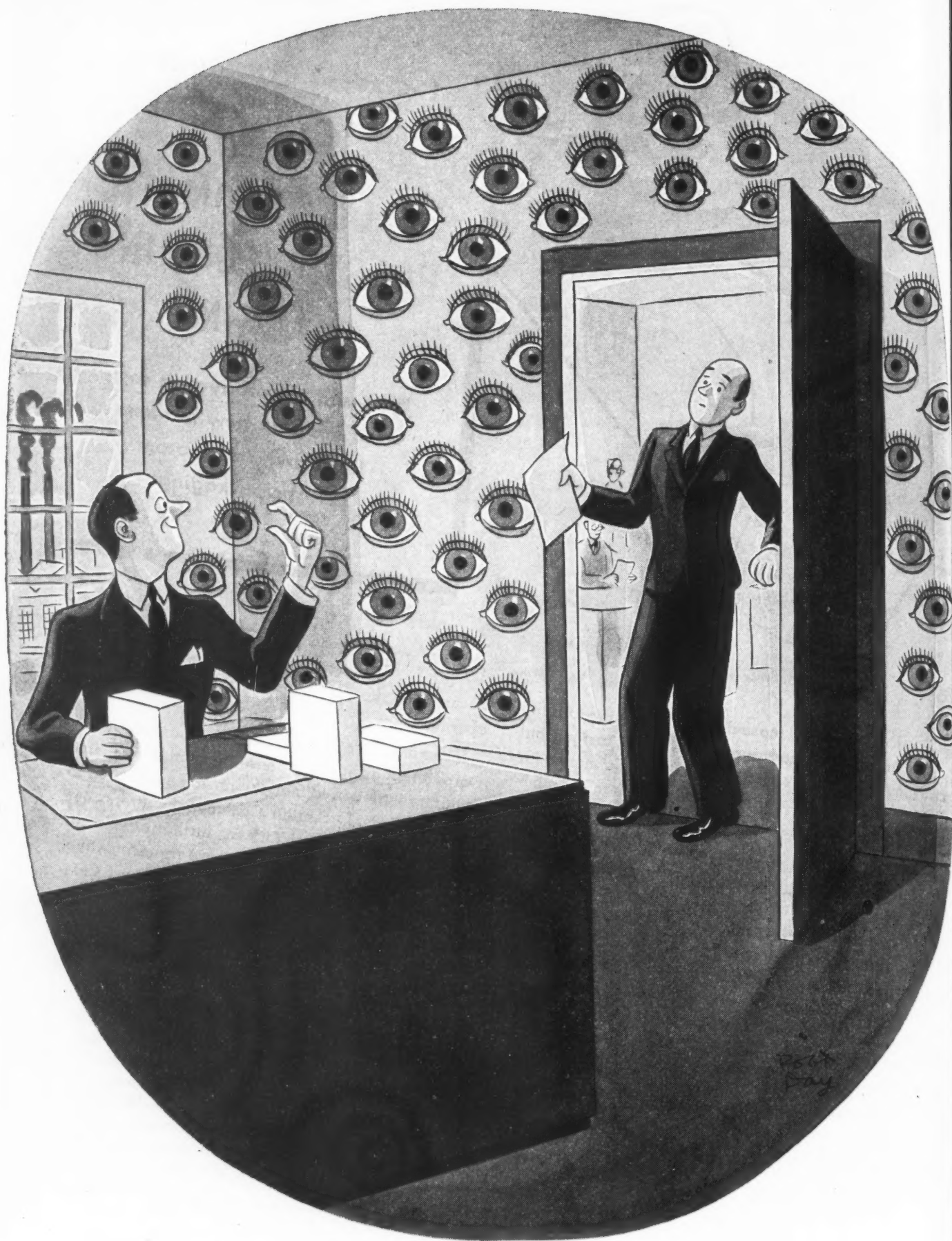
because of the low labor cost involved in their operation.

In the interest of the packaging industry, Celanese Corporation is making these machines available without restriction to fabricators. You are invited to consult the F. L. Smithe Co., manufacturers, 645 West 44th Street, New York for further details—or to get in touch with your Celanese representative. Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y.

**EXECUTIVES!** Just published, 136 page manual entitled, "FABRICATING METHODS FOR LUMARITH\* CELLULOID\* AND SIMILAR THERMOPLASTIC MATERIALS." Will answer many of the most frequently asked questions, on the fabricating of plastic materials. Write for complimentary copy on your company letter-head. Additional copies and copies for individuals and students, \$1.00 each.

*A Celanese\* Plastic*

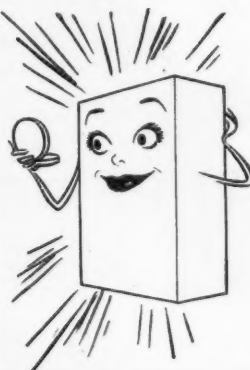
\*Reg. U. S. Pat. Off.



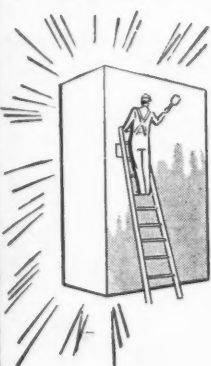
# Wall paper suggestion for the office of every folding carton user...



**IT'S A GOOD IDEA** to keep reminding yourself that the greater the eye-value, the bigger break your package will get in tomorrow's self-serve stores and open displays. It will need that break. For impulse or pick-up sales now account for a tremendous volume. Tomorrow, it will be even larger.



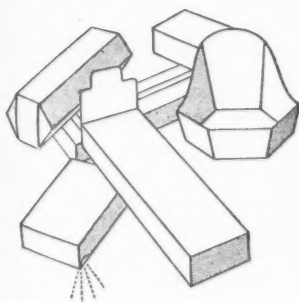
**EYE-CATCHING FOLDING CARTONS** start with the right board. And many of America's leading folding carton users will tell you that the "right board" is Coated Lithwite. They'll show you how brilliantly colors come up on this revolutionary board... how sharply product illustrations reproduce with a tempting, life-like realism that makes hands reach for them.



**COATED LITHWITE** is unusually white. Its surface is uniform. Hard. Smooth. Free from chalkiness. Forms a perfect base for plates and inks. Its rich, velvety feel says quality. Add Gardner-Richardson's fine press work, precise methods, skilled plate-making, careful make-ready and thorough checking... and it all adds up to folding cartons that give your product a real advantage.



**SIX YEARS** of Gardner-Richardson experience and technical improvement are behind this great paper-board development. Coated Lithwite is the original paperboard, made and coated in one continuous, high speed operation. Manufactured to rigid G-R standards, Coated Lithwite not only gives eye-catching printing quality, but it also folds and scores without flaking or shattering, takes a positive seal, speeds through filling machines.



**GET STARTED, NOW.** Find out how *Coated Lithwite* can improve the eye-appeal of your folding cartons. Be ready, when new orders for *Coated Lithwite* can be filled (at present, we're sold up!) ... to get the jump on your competition with a folding carton that does a better selling job, gives your product a shelf and display advantage. Put your problem up to our technical and merchandising specialists. They'll jump at the chance to show you what can be done with ingenuity, know-how ... and *Coated Lithwite*. Write, today.

## The GARDNER-RICHARDSON Co.

Manufacturers of Folding Cartons and Boxboard

MIDDLETOWN, OHIO

Sales Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT

# *Speaking of* PROTECTION—



When you really want protection, this friendly little pup isn't the kind you'd select. When you want protection for your product, you don't want any ordinary package either. You want FLAV-O-TAINER, the patented duplex bag that is heat sealed on all seams, safeguarding the contents against air, moisture, grease and odors.

## **"FLAV-O-TAINER"**

—will later be available in the following Royalflex films—SELLOFLEX, which is cellophane laminated to itself or to other appropriate material; LUMIFLEX, aluminum foil laminated to another appropriate material; PLIOFLEX, pliofilm laminated to itself or appropriate material; DUOFLEX, moisture proof coated glassine laminated to itself.



THOMAS M.

**ROYAL**

& COMPANY • Philadelphia 20

# YOUR POSTWAR LABELS Must Do a Double Duty Merchandising Job



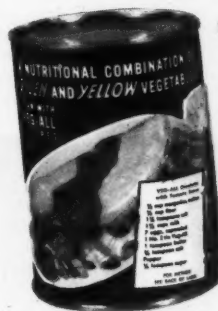
## \*CAPTURE BUYING IMPULSE AT POINT-OF-SALE

Your label will be more important as your sales representative at point-of-sale in the competitive postwar era than ever before. As such, it should have the maximum eye and appetite appeal provided by "U-S" EYE-PETIZED labels.



## \*HOLD CONSUMER INTEREST AT POINT-OF-USE

Your label also must do a merchandising job at point-of-use by providing suggestions for serving your food product with EYE-PETIZED food pictorials and recipes. This use of the consumer panel will assure greater repeat sales for the product.



● The VEG-ALL label (shown above, left: front or display panel, right: back or consumer panel) created and produced at U. S. P. & L. for The Larsen Company, is one important reason why 7 out of 10 cans of mixed vegetables sold today are VEG-ALL. Yes, eye and appetite appeal provided by "U-S" EYE-PETIZED labels pays off in sales results. Now is the time to give consideration to the merchandising value of your label. Consult "U-S"—creators and producers of packaging materials of proven sales appeal. Call or write for a "U-S" representative.



**UNITED STATES PRINTING & LITHOGRAPH COMPANY**  
 HEAD OFFICE: 383 BEECH STREET, CINCINNATI 12, OHIO ★ SALES OFFICES IN PRINCIPAL CITIES  
 Great "U-S" Plants . . . Producing Highest Quality Packaging and Advertising Materials

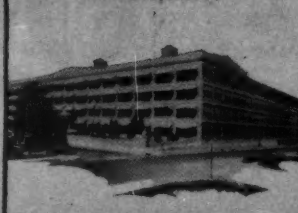
BALTIMORE



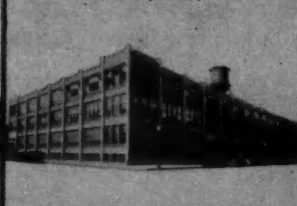
BROOKLYN



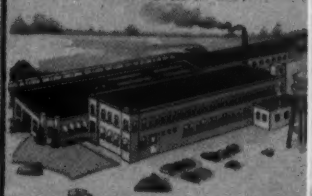
CINCINNATI



ERIE, PA.



ST. CHARLES, ILL.



# Hand-blown crystal glass vials



Individually executed by American craftsmen, these hand-blown crystal glass perfume vials by Glass Industries emphasize the impression of costliness by their delicacy and small size, ranging from a few drops capacity to one ounce. Note decorative possibilities of stopper-applicators. Items shown are available now.

ALL MINIATURES AND VIALS FEATURE G.I.I. PATENTED,  
EXCLUSIVE, LEAKPROOF, AIR-  
TIGHT STOPPER-APPLICATOR



# GLASS INDUSTRIES INC.

MANUFACTURERS  DESIGNERS

10 WEST 33RD STREET, NEW YORK 1, NEW YORK



## **CRISIS KIT...kept ready for emergencies by Mr. Cellophane**

FLARES, flashlight, instruction books, etc. are vital equipment for this collapsible lifeboat which is carried on the mighty Clippers that are flying high priority passengers and freight on the global airways. These essential items must be in perfect condition in case of emergency—and that means another vital job for Sylvania cellophane! The articles are heat sealed in air-tight moisture-proof cellophane and inserted in the pocket of the inflated boat. Then the boat is deflated and stowed in its place on the Clipper. Here is just another essential Sylvania development that will mean more uses for cellophane... and better cellophane... in the postwar world.



# **SYLVANIA CELLOPHANE**

**Made only by SYLVANIA INDUSTRIAL Corporation**

**Manufacturers of cellophane and other cellulose products since 1929**

General Sales Office: 122 E. 42nd St., New York 17, N. Y. ★ Plant and Principal Office: Fredericksburg, Va.



MAY • 1945

29



**IT'S ALWAYS FAIR WEATHER**

**WHEN GOOD PRODUCTS *and*  
SEFTON'S "PROFIT PACKAGING"**

**GET TOGETHER !**

The right combination . . . good, dependable products and Sefton's Profit Packaging! For down-right sales appeal, team the two, and watch your post-war profits mount! Sefton's pull-string top opening can has three definite advantages: (1) it factory seals your product (2) it opens quickly and easily, and (3) it can be securely closed again.



**FIBRE CAN COMPANY**  
ST. LOUIS . . . . . NEW ORLEANS

**DISTRICT OFFICES:** • Los Angeles • San Francisco • Denver • Tampa • Chicago • Des Moines • New Orleans • Boston • Detroit • Kansas City • St. Paul  
Omaha • New York • Cincinnati • Cleveland • Oklahoma City • Pittsburgh • Memphis • Nashville • Dallas • Houston • Salt Lake City • Seattle



**"MATTHIAS IS ON TIME"**

*Matthias Paper Corporation*

165 W. BERKS STREET  
PHILADELPHIA 22, PA.



## "FOR PRACTICAL PATRIOTISM"

### **DOBECKMUN PRODUCTS** for every branch of service on every fighting front

Individual gas protective capes for  
Army, Navy and Marine personnel  
Cargo parachutes  
Aircraft wing covers  
Bomber glass-forming envelopes

#### **PACKAGES for**

Ordnance parts and assemblies  
Bomber rivet-control program  
Standard emergency rations  
Lifeboat, jungle and parachute  
rations  
Bandages, plasma equipment and  
other health products  
Gas masks

#### **ELECTRICAL INSULATION for**

Shipboard and shore cables  
Electrical motors  
Aircraft and ship gun-control systems  
Radio and communications  
Other vital electronic devices

Many improved peacetime products  
will be evolved from these military  
developments created by Dobeckmun  
research.

● The men and women of The Dobeckmun Company's Cleveland plant are proud to be included among American workers who have been awarded the Army-Navy "E" emblem. The value of this recognition is heightened by the fact that, to date, only 4% of the nation's war production plants have been so honored.

In accepting the award, we wish also to express our appreciation to our many suppliers and subcontractors, who by their splendid spirit of co-operation have helped us earn this recognition.

We pledge continuing loyalty to our country and to the men and women in the armed services who use our products in so many different ways. We recognize especially our obligation to support our 112 fellow workers now in our country's service. We promise the same uninterrupted and tireless effort in the future as in the past, to maintain the quality and quantity of our deliveries of war essentials, until final Victory has been won.

*The Men and Women of The Dobeckmun Company, Cleveland, O.*

# DOBECKMUN

**SELF-SELLING PACKAGES IN PROCESSED FILMS AND FOILS**

THE BIGGEST THING IN THE WORLD CAN BE A PIECE OF PAPER



One Pound of Waste Paper }  
makes two Blood Plasma Boxes }



## Hero's Life—*wrapped in Paper*

He's been hit.

The medic rips open the heavy paper carton, unwraps the corrugated paper and takes out the plasma bottle. Thank heaven it came through undamaged! For this may save a hero's life.

Paper protects lifesaving plasma right from the donor center to the front line. Paper protects it against shock of shipping, trucking, parachuting and war's rough handling.

In fact, paper is so important to the armed services that they have 700,000 vital uses for it. Cartons that contain vaccine bottles, emergency rations, life-preserver lights—these are but a few of the uses.

To meet a greatly stepped-up demand

*we've just got to salvage more paper.* We must do this no matter how well the war progresses for us.

School and city groups are in the paper salvage fight. Boy Scouts, Girl Scouts, Brownies, and the American Legion are among those enlisted.

But without you—the citizen who ties up a bundle every week and gives it to the collector—the entire paper salvage drive would bog down.

Don't weaken now. You have done a swell job so far. Get that bundle of old paper ready every week. Make sure it is collected. If it isn't, phone the American Legion, the Scouts, or the City, and urge your neighbor to do the same.



**OXFORD  
PAPER  
COMPANY**

230 Park Avenue, New York 17, N. Y.

*MILLS at Rumford, Maine  
and West Carrollton, Ohio*

*WESTERN SALES OFFICE:  
35 East Wacker Drive, Chicago 1, Ill.*



*Included in Oxford's line of quality printing and label papers are: Enamel-coated—Polar Superfine, Mainefold, White Seal, Rumford Enamel and Rumford Litho C1S; Uncoated—Engravatone, Carfax, Aquaset Offset, Duplex Label and Oxford Super, English Finish and Antique.*



Well, nobody will hurt you, Mr. Bottle! You are not hunted to be EATEN, but to be usefully put to work. Mr. Slowey promises that he'll put you in safe hands. He

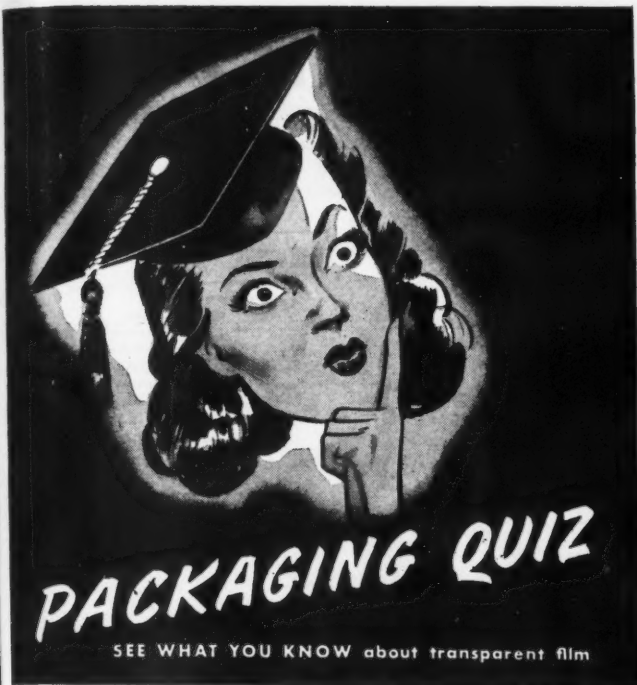
says he has many quantities of bottles, containers, and caps of all shapes and sizes, and that many business men will be glad to know where to get just the lot they need.

Numerous businesses have met real "bottlenecks" due to lack of proper containers. Here's the way to solve this important problem: Contact the Glass Container & Cap Outlet Company and you'll be pleasantly surprised to find that a variety of sizes, quantities, shapes, and forms of bottles and caps are available for immediate shipment to you!

**glass  
container  
&  
cap  
outlet co.**

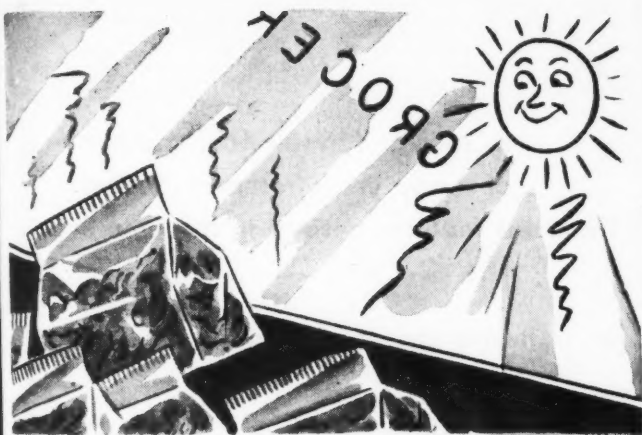
876 Broadway  
New York 3, N. Y.

**CONTACT US TODAY**



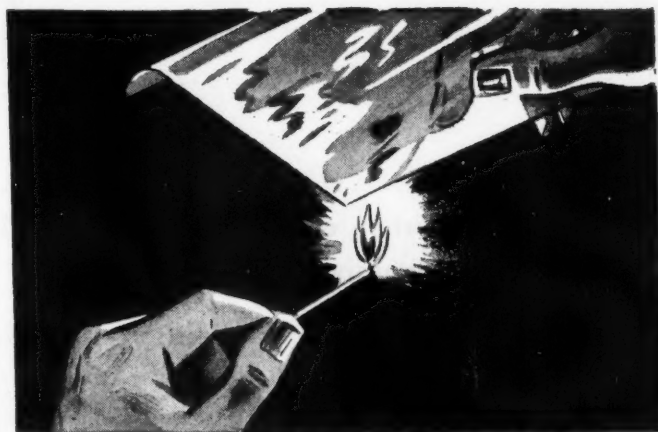
**Q. Are the fighting man's emergency rations protected against the effects of water?**

**A. Yes.** And water-repellent Du Pont Cellophane furnishes this protection to 26 of the 27 items in the Navy Emergency Ration for Life Rafts. Also included in the ration is a waterproof Cellophane bag for storage of partly used foods. Other examples of this protection are the Army rations "D" and "K," the mixed fruit bar ration and the parachute emergency ration.



**Q. Does Du Pont Cellophane give protection against potato chips becoming rancid when displayed in sunlight or artificial daylight?**

**A. Yes.** Du Pont has developed a colored film which filters out the ultra-violet rays which contribute to rancidity development. The film is also moisture-vaporproof. Potato chips, peanuts and other oily or greasy products packed in this special type of Cellophane stay fresh longer . . . thanks to Du Pont research.



**Q. Can Du Pont Cellophane be made flame-resistant?**

**A. Yes.** Standard Cellophane has the same Underwriters' rating as newsprint, but Du Pont has developed a special flame-resistant film, which carries official Underwriters' Laboratories rating #MH2977. It has a vital war use as a winding on electric wires and cables. This flame-resistant quality will be an important safety feature for Cellophane decorations when the film is again available for such purposes.

**T**HERE are 56 different types of Du Pont transparent films, of three distinct classifications—Cellophane, cellulose acetate and polyvinyl alcohol film. Du Pont will help you find the one best suited to your requirements. Military needs now limit the ability of our converters and ourselves to supply the civilian demand for these Du Pont products. However, investigate now, so you will be prepared to take advantage of transparent packaging post-war. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

**BUY BONDS REGULARLY!**

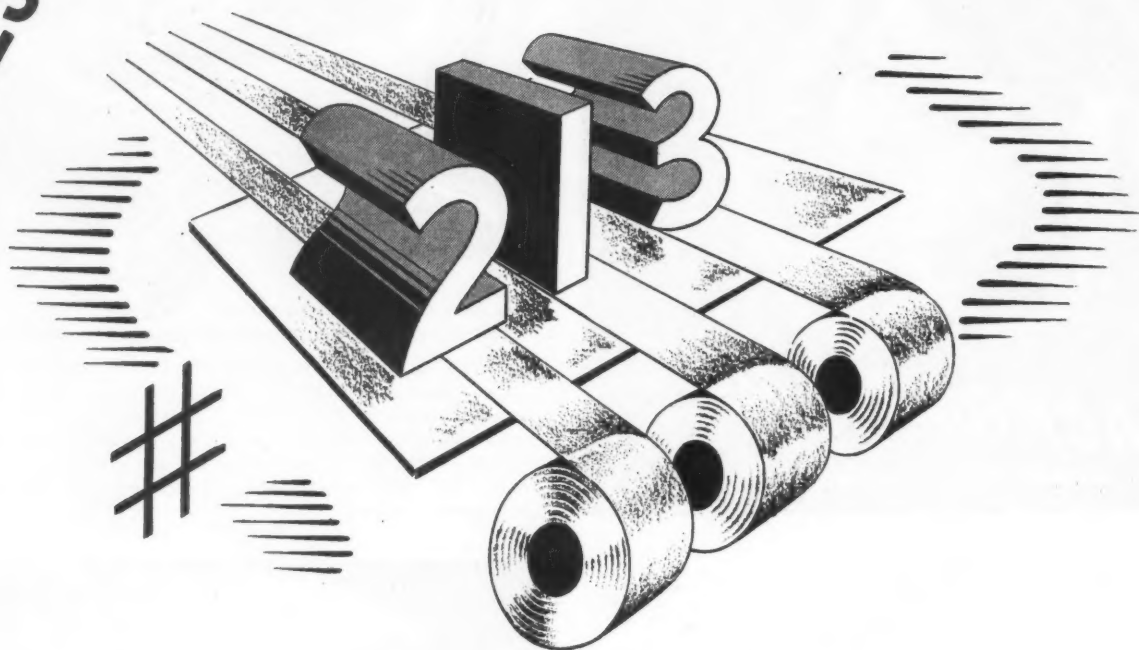
# Du Pont Cellophane

**Shows what it Protects — at Low Cost**



**BETTER THINGS FOR BETTER LIVING  
...THROUGH CHEMISTRY**

# PRESSURE SENSITIVE ADHESIVE



A special formulation, product of many years research testing and production experience, combines all of the finest features desired in a pressure sensitive adhesive:

- (1) No offset or transfer—short string insures adhesive staying on tape—no off-setting on work.
- (2) Even stripping—non-aggressive adhesive strips off roll evenly without jumping or crackling.
- (3) Balanced adhesion to cohesion—the important quality of a good pressure sensitive adhesive.
- (4) Retained tackiness—under difficult conditions of heat and cold, dryness and moisture; over long periods of time.



## FLOOD & CONKLIN MFG. CO.

*Coatings of Scientific Reliability*

NEWARK 5

NEW JERSEY

# KIDDER POINTERS



## No. 7. Observations of trends and indications in packaging . . . noted by the manufacturers of Kidder "3 Point" Presses, Kidder Press Company, Inc., Dover, N. H.

Chemistry for the pulp, paper and printing industries backgrounds the good package which is the final result of teamwork by package engineer, designer, materials producer, manufacturer, merchant, packer, shipper. More than 50 chemicals are commonly employed in manufacture of printing inks. "Looking into 1945" titles a thoughtful article in PACKAGING PARADE, January '45.

Packaging in general has received excellent publicity during the war through variety of protective wraps developed. The Army alone packages 700,000 items in paper, and paper companies are becoming increasingly aware of the future of the packaging business.

Individual waxed cardboard boxes are the inner packaging for small arms ammunition produced at Chrysler Corp. Ordnance Plant at Evansville, Indiana. Boxes are then "sardine" packaged in weather- and- corrosion-proof cans, opened with small twist keys.

If the frozen food manufacturer wants to merchandise his products on an equal basis with other retail foods, he must have a package that is far more attention-compelling, more colorful and appealing than most used at present . . . appetite appeal must be stressed, highlights Willard G. Meyer, Milprint Inc., in GOOD PACKAGING for January '45. The article, "Competition Ahead for Frozen Foods".

Compressed packaging of coffee for flavor retention, as developed by Don Ray of TRI Engineering, presents four quarter-pound bricks enclosed in a pound box . . . flexible containers and glazed papers being the containers. Robert F. Millar tells the story in GOOD PACKAGING for January '45.

Labels or Libels? titles a "must" article for packagers in GLASS PACKER for February '45 in which R. G. Peck, Jr. suggests that sales are made by good labels building up friendly recognition of a brand to Mrs. Housewife. Consumers respond consciously to advertising or subconsciously to sudden impulse stimulated by fortunate balance of line and color in a package viewed in juxtaposition to all other color and line elements in sight.

Heavy wax-covered paper makes a container sealing odors in and insects out for garbage disposal. It is suspended from a special metal frame and seals tightly.

Cellophane wrappers such as come on cigarettes protect eyeglasses from paint spatters or from damage by abrasive particles from emery wheels if slipped over lenses while at work, suggests POPULAR MECHANICS for February '45.

Allyl starch, available as a soft, gummy material or as a powder . . . made from potato and sweet potato starch, cornstarch and tapioca dextrin . . . can be used for coating and impregnating paper and textiles, among industrial applications. Prepared by Messrs. Nichols, Hamilton, Smith and Yanovsky of U. S. Dept. of Agriculture, Eastern Regional Lab., Philadelphia.

Typewriter and other business machine ribbons can be quickly and easily re-inked on both sides of the ribbon simultaneously with a hand-operated roller unit that doubles their life when only dried out and not actually worn out.

Frozen concentrated milk involving three manufacturing steps — evaporation, preliminary freezing to mushy consistency, then quick-freezing at 10° below zero after packaging — brings milk to hospital ships that tastes like fresh product. Research by workers at Massachusetts Dairy Laboratories, Roxbury, Massachusetts.

**KIDDER PRESS COMPANY, INC., Printing Machinery, Dover, N. H.**



## ANILINE...GRAVURE...LETTERPRESS...

### *Tie Kidder's Plans In With Yours*

Kidder's "3 Point" trademark now stands for three *types* of printing presses for the converting trade, as well as for the three characteristics of quality printing indicated nearby. In addition to multi-color letter presses, Kidder will offer:

*A line of aniline-type presses*, headed by the "Aniliner", successfully introduced before the war — now perfected into a line of heavier presses for high-speed, high-quality work. Numerous refinements have been made during the war; and a new, narrow model intended primarily for cellophane and known as the "Celloprinter" will be introduced.

*A line of gravure presses*. These will

be known as "Unitype" presses, because they can be purchased a unit at a time, expanding as needs require.

Meanwhile, Kidder has reorganized its line of slitters and rewinders; a number of new models for the converting trade will be offered.

While many of these machines are still in the development and testing stage, it is possible today to tell you what they are being built to accomplish . . . and, in the case of the "Aniliner", specific information can be provided.

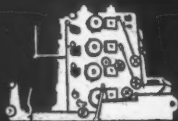
Write us for a copy of our new Aniliner Bulletin. Kidder Press Company, Incorporated, Dover, New Hampshire.



CONTROL OVER THE PAPER  
PROPER DISTRIBUTION OF INK  
ACCURACY OF THE IMPRESSION

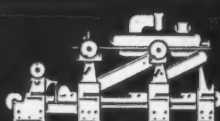
#### **KIDDER**

Manufacturer of "3 Point" Presses—so-called because they fulfill the three major requirements for perfect printing.



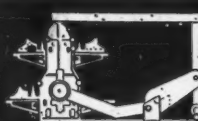
**MULTI-COLOR  
LETTER PRESSES**

for waxed paper, box wrappers, etc., rewound or sheet-delivered — up to 72 inches.



**MULTI-COLOR "UNITYPE"  
GRAVURE PRESSES**

for cellophane, foil, piliofilm, etc., rewound or sheet-delivered — up to 36 inches.



**"ANILINER"  
MULTI-COLOR PRESSES**

for decorative papers, cellophane, glassine, etc. — up to 65 inches.



**SLITTERS AND  
REWINDERS**

for paper mill finishing rooms and small-roll, high-speed slitting — up to 72 inches.

CLASS OF SERVICE

This is hot copy!  
Everyone interested  
in modern packaging  
methods, should read  
this message.

# SEAL-A-GRAM

SYMBOLS

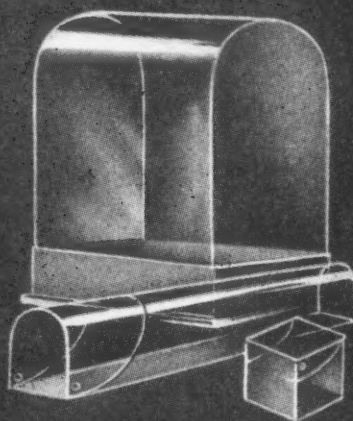
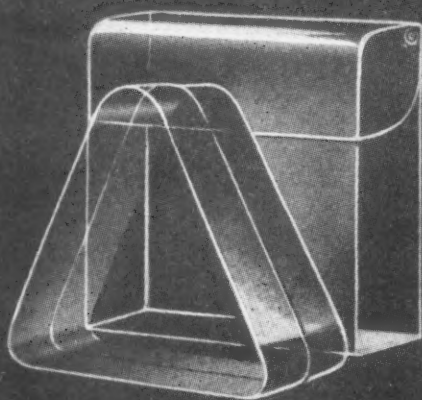
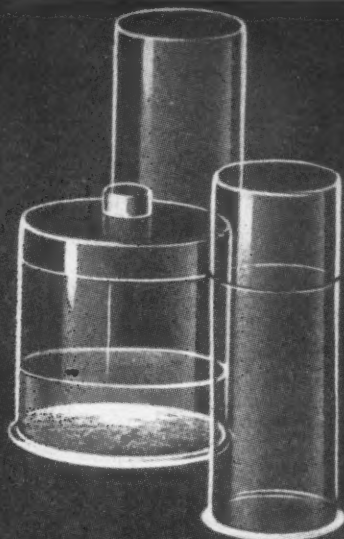
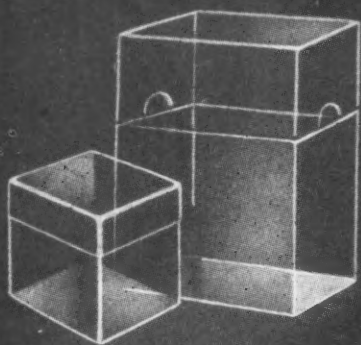
"Sara-Seal" is the  
symbol of the last  
word in flexible plas-  
tic protective pack-  
aging.

MAY 1945 DETROIT, MICH.

TO PLASTIC PACKAGING USERS

THE SARA-SEAL HEAT SEALER---LAST WORD IN FLEXIBLE PLASTIC PROTECTIVE  
PACKAGING EQUIPMENT---NOW BEING USED WITH A WIDE RANGE OF MATERIALS  
INCLUDING PLASTIC FILMS, FOILS, AND FOIL COATED PAPERS. OUR RESEARCH  
DEPARTMENT WELCOMES OPPORTUNITY TO COOPERATE WITH BOTH MANUFACTURERS  
AND USERS OF PROTECTIVE PACKAGING MATERIALS IN ADAPTING SARA-SEAL  
METHOD TO YOUR NEEDS. WIRE OR WRITE FOR ILLUSTRATED BOOKLET AND SAMPLE  
OF SARA-SEAL WELDED CLOSURE. SEND SAMPLE OF YOUR MATERIAL FOR TEST.

TOM SAFFADY SAV-WAY INDUSTRIES  
DETROIT, MICHIGAN



## *Ethocel Sheeting*

### PRESENT AND POTENTIAL USES:

Containers of all types, sizes, and shapes for jewelry, cosmetics, and other products requiring visual display plus protection. Also used for displays, advertising novelties, greeting cards, envelopes, labels, decalcomanias, records, electrical insulating tape, ice cube trays, lighting fixture covers, lamp shades, and similar products.

### PROPERTIES AND ADVANTAGES:

Combines toughness with flexibility: tensile strength, 10,000 lbs. per sq. in.; elongation, 30%; bursting strength (Mullen), 48; folding endurance (lkg. M.I.T.), 4000. Retains these characteristics and transparency over long periods despite handling. Resistant to alkalis and grease. Withstands heat to 220° F. cont.; to 275° F. inter. Resists cold to -75° F. Easily fabricated by drawing, folding and scoring. Can be beaded, printed and joined by adhesives.

## RIGID, TRANSPARENT PACKAGING

extra product protection

plus

extra sales appeal



Many packages afford product protection—many afford sales appeal. But in Ethocel Sheeting, you find both these qualities—with fabrication advantages that can lower packaging costs.

*Protection?* First requirement of practically every package is lasting protection—to keep the product in factory-new condition in spite of shipment, handling and shelf wear. This means rugged containers—containers that are able to “take it”—containers that are a barrier to costly damage.

*Sales Appeal?* Perhaps not now, but certainly soon. Once more products that sell will be products that attract the eye. Appearance has always been a major selling help and the trend is toward transparent packages that act as individual display cases.

*Fabrication?* Naturally, it's important from the standpoint of economy that packages be quickly and simply fabricated without “babying” the material.

All of these requirements are met by Ethocel Sheeting. The properties\* of this top ranking packaging material are well worth investigation.

**THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN**

New York • Boston • Philadelphia • Washington • Cleveland • Detroit  
Chicago • St. Louis • Houston • San Francisco • Los Angeles • Seattle



# AS TOUGH AS THEY COME

**S**HEFFALLOY *Sheffield Process* Tubes, like our victorious Navy have proved their superior toughness and strength. As our battle fleets have overcome dangerous enemies, so have these better SHEFFALLOY TUBES and VINICOTE *Inner Coatings* eliminated dangers to profits and prestige! Tougher *Sheffalloy Metal* treated according to our exclusive *Sheffield Process*, will give your product more protection than it will ever need, and VINICOTE—the series of more than 50 inner coatings developed by our research staff, now prevent corrosion and creep with many products heretofore impossible to pack in this desirable type of container. If you have a problem in which good collapsible tubes are involved, submit it to our staff of capable packaging engineers.



OFFICIAL U. S. NAVY PHOTOGRAPH

**NEW ENGLAND COLLAPSIBLE TUBE CO.**  
 3132 S. CANAL STREET, CHICAGO 16 • NEW LONDON, CONN. • W. K. SHEFFIELD, V. P., 500 FIFTH AVENUE, NEW YORK 18  
 THE WILCO COMPANY, 6800, MCKINLEY AVE., LOS ANGELES 1



# PROTECTING...

## *an important investment*

Whether your "Baby" is a line of radios, refrigerators, tractors, or even watermelons . . . you have an "important investment" to protect.

Just as modern hospitals assure positive identification by applying baby's initials with stencil and ultra-violet . . . so, too, market-wise manufacturers rely on Palm Brothers Decals for dynamic and positive product identification.

Colorful Palm Brothers Decals can be applied quickly to any commercial surface. Easy to use, economical to buy, they are your guaranteed marks of distinction.



Write today for your  
free copy of new  
Bulletin No. 921.

**THE  
PALM  
BROTHERS** *Decalcomania Co.*  
CINCINNATI . . 12 . . . OHIO . . U.S.A.



*Yes Alice!*

## THIS IS WONDERLAND

That mythical land of fantasy behind the looking glass was pure imagination. Today there is a wonderland that is a reality. Cool, calculating scientists have brought us a new world of glass magic. There is glass that bends, glass that floats, glass that bounces. Door hinges, ball bearings, coil springs are made of glass. It is even used as transparent armor plate in airplanes.

The manufacture of each of these miracle glasses is a highly specialized job. So, too, is the manufacture of fine glass containers.

For over half a century, Carr-Lowrey has specialized in producing glass containers of outstanding excellence. Today, a host of manufacturers accept the name Carr-Lowrey as an assurance of quality and complete satisfaction.

**CARR-LOWREY  
GLASS CO.**

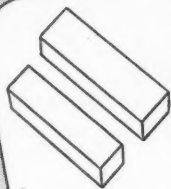
Factory and Main Office: Baltimore, Md.

New York Office: 500 Fifth Ave.

Chicago Office: 1502 Merchandise Mart



**NOW ONE AIM...**  
**A QUALITY THAT WILL SELL**



In confections as in staple foods or fussy toiletries you can set the product standard. But consumers will make their first choice from what they see. Why not hold out the invitation of an attractive, useful package? What better way to introduce product quality!

Folding cartons made of Ridgelo Clay Coated Boxboard quickly suggest that their contents are leaders in the field. For these boxes are smoother, brighter, cleaner-looking. Designs on Ridgelo do look like those engraver's proofs.

Back up costly research, equipment, materials by inviting buyer acceptance—a modern carton of Ridgelo Clay Coated is a small expense in the large game of winning your market.

Leaders point the way to



**MADE AT RIDGEFIELD, N. J.,**  
**BY LOWE PAPER COMPANY**

★ Do Your Share In The Waste Paper Campaign ★

Representatives: Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit  
Gordon Murphy and Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Sons, Inc., Philadelphia

# 5 *check points for* **DOUBLE-DIP PACKERS \***

The efficiency of the double-dip package depends upon the correct functioning of the following five factors. Failure of any one impairs the success of the process.

## 1 **NATURE OF THE BOARD**

Board should be properly sized; should have correct bending qualities; should not be too high in moisture content.

## 2 **CARTON FABRICATION**

Cartons must be accurately die-cut and scored to specifications. Manufacturer's side seam must be correctly aligned.

## 3 **PACKING**

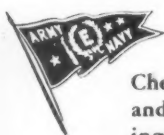
Variations in the size of the component parts in the package may cause slack fill or overfill, either of which will result in poor sealing. In the case of slack fill, pads must be used. If package is overfilled, component parts must be rearranged.

## 4 **SEALING MACHINE**

Glue applicator rolls should be adjusted to give complete glue coverage on top and bottom flaps. Flap folders and guides should be adjusted to give a square box. Adhesive used should hold the box permanently square after flaps have been correctly folded over. Adjustment of compression belt should be checked — too much is as bad as too little.

## 5 **DIP TANKS**

Temperature control is important to obtain effective coating penetration and surface coverage.



Check all five factors to insure tight, moisture-proof packages. — Published by the Dewey and Almy Chemical Company, Cambridge 40, Massachusetts, in the interest of better packaging. Reprints available.

\*"DOUBLE-DIP" is a new phrase in packaging to describe the process of using a Standard-Knapp double-dip machine to immerse a carton twice in molten thermoplastic coating to give a moisture-vapor-proof package.



# The World's Largest Unfilled Order - Victory

We must speed up production and delivery of war supplies to the fighting fronts.

And we must all buy more War Bonds — today and tomorrow.

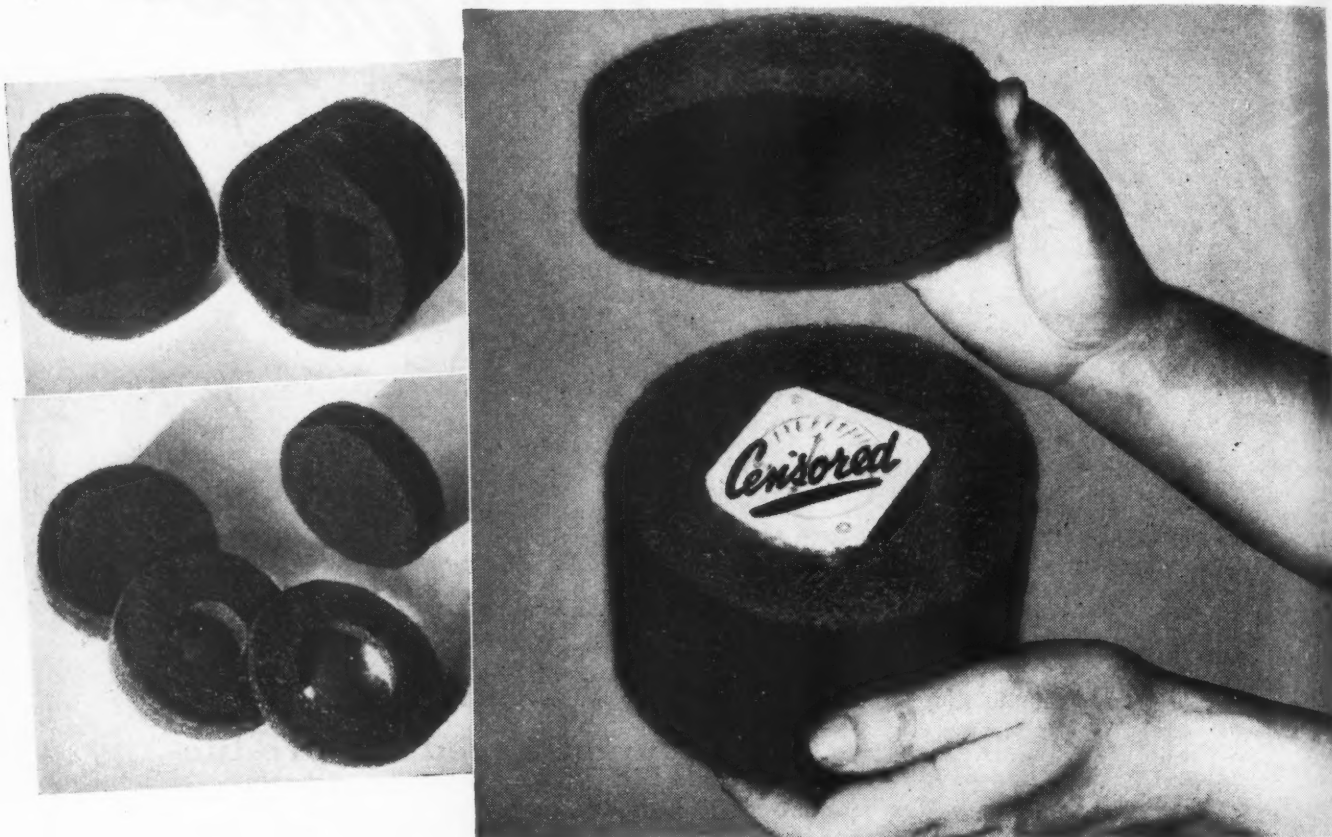


**GAYLORD CONTAINER CORPORATION, General Offices: SAINT LOUIS**

CORRUGATED AND SOLID FIBRE BOXES . . . FOLDING CARTONS . . . KRAFT GROCERY BAGS AND SACKS . . . KRAFT PAPER AND SPECIALTIES

New York • Chicago • San Francisco • Atlanta • New Orleans  
Jersey City • Seattle • Houston • Indianapolis • Los Angeles  
Oakland • Dallas • Minneapolis • Jacksonville • Columbus • Tampa  
Fort Worth • Cincinnati • Des Moines • Oklahoma City • Portland  
San Antonio • Detroit • Greenville • St. Louis • Kansas City  
Memphis • Milwaukee • Chattanooga • Bogalusa • New Haven  
Weslaco • Appleton • Hickory • Greensboro

# INEXPERIENCED WORKERS PACK DELICATE INSTRUMENT FOR 7500-MILE TRIP



## ***Unique Rubberized Material Offers Pre-Tailored Protection for Fragile Products***

There is no other packaging, cushioning or space-filling material quite like Texlock\* for protecting delicate instruments against damage in transit. Regardless of distance, climatic changes or rough handling, it retains its resilience and will not become brittle, absorb moisture, bunch up or shift about.

Extremely light in weight, yet tough, can be used repeatedly, delivering new and returning war-damaged instruments or parts to the manufacturer. Normal damage to outside container is not transmitted

through Texlock to device it is designed to protect.

Whatever your problem, this amazing new rubberized material can be correctly designed and molded or die-cut to order — ready to receive any size, shape or weight article and fit into any case or container.

Our rubberized curled hair and bonded fiber products are serving in a host of ways in planes, tanks, ships, as well as for conveying delicate parts all over the world right now. It is a successful material that can serve you dependably!

*\*Trade Mark*

## **Sponge Rubber Products Co.**

213 Derby Place, Shelton, Conn.

• Plants in Derby and Shelton, Conn.

Sales Offices: New York • Chicago • Washington • Detroit

**WORLD'S LARGEST MANUFACTURERS OF CELLULAR RUBBER AND BONDED FIBRE PRODUCTS**

**Right dressing  
for woodwork...**

**...Right dress  
for the package!**



This household help not only polishes woods, but fills in unsightly scratches and nicks. And it comes in the right dress . . . protected by a Du Pont CEL-O-SEAL\* cellulose band.

The CEL-O-SEAL band keeps the bottle securely closed. It prevents leakage should the closure come loose in transit. And the attractive CEL-O-SEAL band, in a color blending with the closure, gives a neat, eye-appealing touch.

CEL-O-SEAL bands also give protection against evaporation, contamination and substitution. They're right dress whenever protection and appearance are important. They come in a wide range of colors and color-combinations, and can be indelibly printed with trade mark or sales message.

Today, as you plan your package of tomorrow, consider the advantages of CEL-O-SEAL bands. Write for full information.

\*TRADE MARK

CEL-O-SEAL bands and WIND-O-BAND\* seals are sold by:

E. I. du Pont de Nemours & Co. (Inc.)

"Cel-O-Seal" Section, Empire State Bldg., New York City 1

Armstrong Cork Co., Glass & Closure Division, Lancaster, Pa.


I. F. Schnier Co., 683 Bryant St., San Francisco 7, Calif.

## **DU PONT CEL-O-SEAL BANDS**

**STICK TO YOUR GUNS—KEEP BUYING BONDS**



BETTER THINGS FOR BETTER LIVING . . .  
THROUGH CHEMISTRY



# ON THE BATTLEFRONTS OF THE WORLD..

**F**OLLOWING G. I. Joe to the far-flung battlefronts of the world, is this unique Salt-Shaker-Envelope. It is produced *and filled* by Neostyle for the Morton Salt Company and is included in a U. S. Army Field Ration unit.

Solving unusual packaging problems involving plain or printed bags, envelopes, or wraps, is a highly developed specialty of ours. We've been giving this type of service to many of America's leading merchandisers for over 47 years!

If you have a simple or intricate packaging problem for war or peace time products, submit it to our staff of capable, long experienced packaging engineers. They'll gladly give ideas, suggestions, and an estimate of cost. And—you won't be obligated to buy.

MEMBER OF INDUSTRIAL PACKAGING • ENGINEERS ASSOCIATION OF AMERICA

BACK AND FRONT VIEWS OF MORTON'S SALT SHAKER ENVELOPE. PATENTED QUIK-SERVY SEAL PERMITS INSTANT OPENING. DIE-CUT SLOTS PROVIDE SHAKING FEATURE.



**Neostyle INC.**  
ESTABLISHED 1898

410 NORTH WABASH AVENUE • CHICAGO, ILLINOIS

PRINTED BAGS, ENVELOPES, WRAPS  
SPECIAL ORDNANCE PACKAGING MATERIALS

# The Porker that turned yellow



This story is about a war baby made of paper. A war baby born to dovetail exactly with a wartime packaging need.

Up to now, every foot of this new paper has gone right off to war. Protecting grease-packed machinery and parts from corrosion while en route to overseas battle zones.

Which brings us back to porkers. Most retail packages of pork products today—bacon, hams, etc.—quickly lose their “healthy” hue of freshness, turn an off-color yellow. There’s a single cause: rancidity of the fat due to exposure to light, excess air circulation, moisture-vapor loss and surface dehydration.

Which brings us back to Keller-Dorian’s war baby. A paper that is grease-, air-, moisture-vapor-, and light-tight.

Foreign odors or tastes can’t penetrate it; sealed-in flavors can’t escape.

This new *functional* packaging paper is available in two coatings: a plastic emulsion, and aluminum foil. Both coatings are permanent; flexible; neither will peel or crack; neither become brittle or tacky at temperatures ranging from 190° above to 50° below zero (F).

Either type may be heat-sealed.

Now, how about cost? Take a ham for example. Instead of a triple wrap—parchment, bleached kraft and outer printed wrap—a single wrap of Keller-Dorian *functional* paper, printed or labeled on the outer surface, is all that is required to do a better job.

We don’t know what your packaging problems are. We don’t know, without testing and trial, if Keller-Dorian *functional* papers will solve them.

But we know this:

If a heat-sealing paper that is grease-, air-, moisture-vapor-, and light-tight even remotely suggests an application in your field of packaging, the chances are it will be worth your time to check with us for further facts.

We know this because of past instances of solving tough packaging problems... where our unique *functional* packaging experience, techniques and thinking has helped others. So why not write us today for free testing samples and data sheets.

**KELLER-DORIAN**  
CORPORATION  
Empire State Building  
New York 1, N. Y.

**FUNCTIONAL PACKAGING PAPERS** *for Protecting Perishable Products*



## READY FOR ROLL CALL!

It takes a large room in Reynolds Laboratory to hold all the experimental rolls of Reynolds foil. This is one section of it.

The rolls you see look very much alike—but they're all different—different weights, different laminations. When the Army Signal Corps asks us for the answer to a packaging problem, eight of these rolls may come down from the wall. A Naval Ordnance problem may summon down another eight . . . or more, to make test after test—or even a new lamination if necessary.

There are twelve highly specialized departments in Reynolds modern packaging laboratory . . . dedicated now to the single aim, of developing better packaging for shipment of the matériel of War.

The needs of war have revolutionized packaging! Undreamed of improvements have been made in the laminating and sealing of foil.

If you are interested in knowing how these new developments can help deliver your products to the public in better condition and with greater sales appeal than ever before—Reynolds technicians will be glad to tell you.

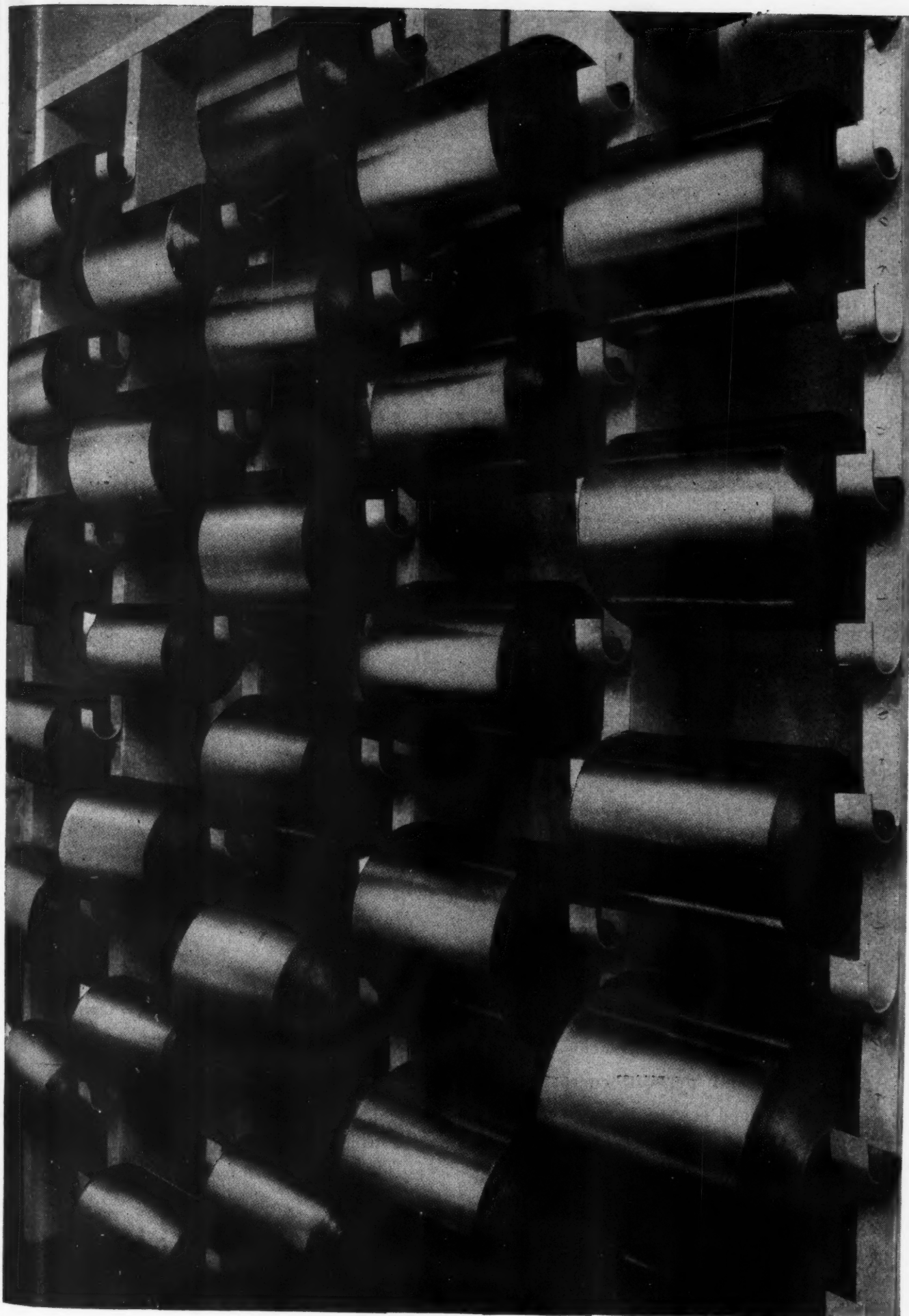
*For 25 years the world's largest producer of foil!* Address inquiries to—Reynolds Metals Co., Reynolds Metals Building, Richmond 19, Va.



# REYNOLDS METALS COMPANY

*Leads the way in Foil Packaging*





*"An Introduction to*  
**PLASTIN**"\*

CONTAINS INFORMATION  
ABOUT THIS SUPERIOR  
MOISTURE-VAPOR BARRIER



Plastin is the new heat-sealing material that surpasses all requirements for Type I barriers and permits corrosion-free shipment and storage in all conditions of atmosphere and temperature for all sizes of products, from tiny meters to huge

generators. "An Introduction to Plastin" is a file-size folder which lists the characteristics of two types of Plastin. A sample of each type is included. Your request will bring you a copy of "An Introduction to Plastin" by return mail.

**PLASTIC FILM CORPORATION**

TELEPHONE: LEXINGTON 2-5458 • 475 FIFTH AVENUE, NEW YORK 17, N. Y.

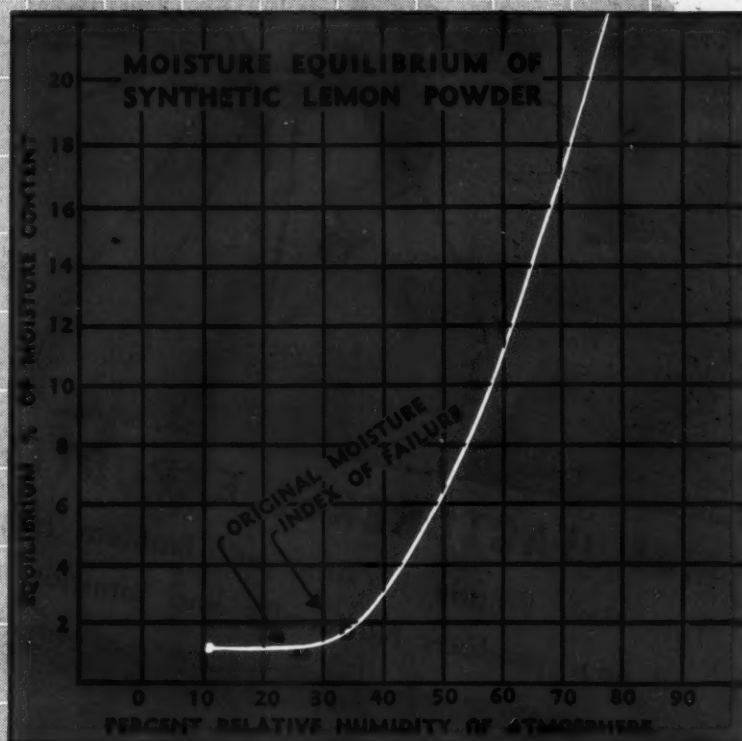
\*T. M. Reg. U. S. Pat. Off. Pat. Pending

# MARATHON TESTS PRE-DETERMINE

The Packaging Demands of Your Product

## HUMIDITY EQUILIBRIA

The graph at the right illustrates how Marathon technicians utilize their Humidity Equilibria studies of a product to determine the degree of protective packaging required. The moisture-absorbing properties of the product are tested at a full range of relative humidities and the humidity equilibria curve is plotted. On this curve is also indicated the point which represents the most desirable moisture content of the product. The range between this and the index of failure indicates the amount of change the product can undergo before becoming unusable or unmarketable. This data gives a complete "picture" of the degree of package protection necessary to preserve original moisture content and flavor under the ranges of temperature and humidity encountered in commercial distribution.



The above graph shows the humidity equilibria curve of a product notoriously difficult to package — synthetic lemon powder, extensively used as a component of Army rations. Original moisture and index of failure points are separated by only a 0.6 per cent moisture difference, indicating sharply the need for a high degree of protective packaging.

## MARATHON CORPORATION

MENASHA, WISCONSIN



The Marathon packaging materials which protect your product are subject to exhaustive tests to determine the properties of tear strength, wet strength, density, porosity, percent Mullen, tensile strength, folding strength, water absorption, water vapor transmission rate, water penetration, grease-proofness, dirt count, mold susceptibility and every other quality which enters into the final selection of the material best fitted to protect your product.



PACKAGES BUILT FROM THE MATERIALS BEST FITTED TO PROTECT YOUR PRODUCT

# MARATHON



American business men inspired this important "Made in the United States of America" change from the original O.W.I. emblem for export shipments. Now, hundreds of manufacturers and exporters tie their products to a U. S. Government campaign that is building good will for American made products among Ameri-

can and foreign consumers. It will pay you to adopt this NEW emblem and tell the world IT'S AMERICAN!

Available in any language and in sizes to suit your particular needs (from product to shipping container) to include your trade mark.

A Decal is the "Come in and BUY-Word" that flashes your sales message without a rest. Whether the need is for a perfume bottle label, point of sale advertising, or a sign for the side of a 20-ton truck, our creative staff is at your service, promptly. **INVESTIGATE NOW!**





# PALM, FECHTELER & CO.

*Creators of Quality Decalcomania*

21 EAST VAN BUREN STREET, Chicago 5, Illinois • 220 WEST 42nd STREET, New York 18, N. Y.

# CUSTOM-BUILT *for* PROTECTION

For packaging insurance against breakage, you can't beat a set-up paper box... Custom-Built for YOU! It gives structural strength to withstand rough handling and exposure to the elements. No other parallel-priced container offers you comparable package smartness, speedy assembly-line packing

and light-weight construction that keeps shipping costs at a minimum. Only Custom-Built set-up paper boxes offer you ALL these advantages AND MORE...and only these modern containers are completely adaptable to your packaging problem, whether it be the protection of rare perfumes or precision machine parts.



*Master Craftsmen*  
OF THE SET-UP PAPER BOX INDUSTRY

Baltimore, Md.  
Maryland Paper Box Co.  
Boston, Mass.  
Bicknell & Fuller Paper Box Co.  
Brooklyn, N. Y.  
E. J. Trum Co., Inc.  
Buffalo, N. Y.  
Thoma Paper Box Co., Inc.  
Charlotte, N. C.  
Old Dominion Box Co.  
Chicago, Ill.  
Kroeck Paper Box Co.  
Columbus, Ohio  
Columbus Paper Box Co.

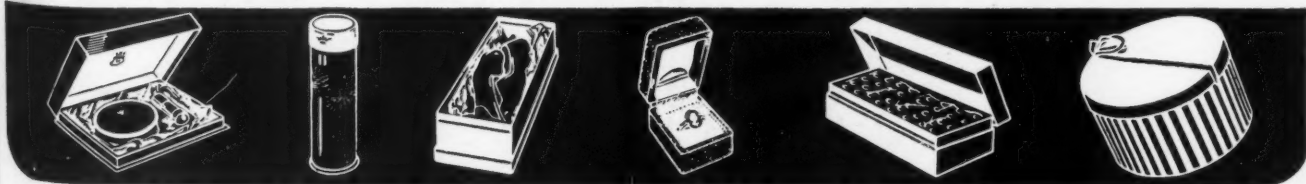
Danvers, Mass.  
The Friend Box Co.  
Fort Wayne, Ind.  
Wayne Paper Box & Printing Corp.  
Hoboken, N. J.  
Shoup-Owens, Inc.  
Kansas City, Mo.  
Crook Paper Box Co.  
Louisville, Ky.  
Finger Paper Box Co.  
Kentucky Paper Box Co.  
Los Angeles, Cal.  
C. W. Hering

Meriden, Conn.  
Shaw Paper Box Co.  
Newark, N. J.  
Mooney & Mooney  
Newark Paper Box Co.  
New York, N. Y.  
A. Dorfman Co.  
Pawtucket, R. I.  
Shaw Paper Box Co.  
Philadelphia, Pa.  
Datz Mfg. Co.  
Walter P. Miller Co., Inc.  
Edwin J. Schoettle Co.  
Geo. H. Snyder, Inc.

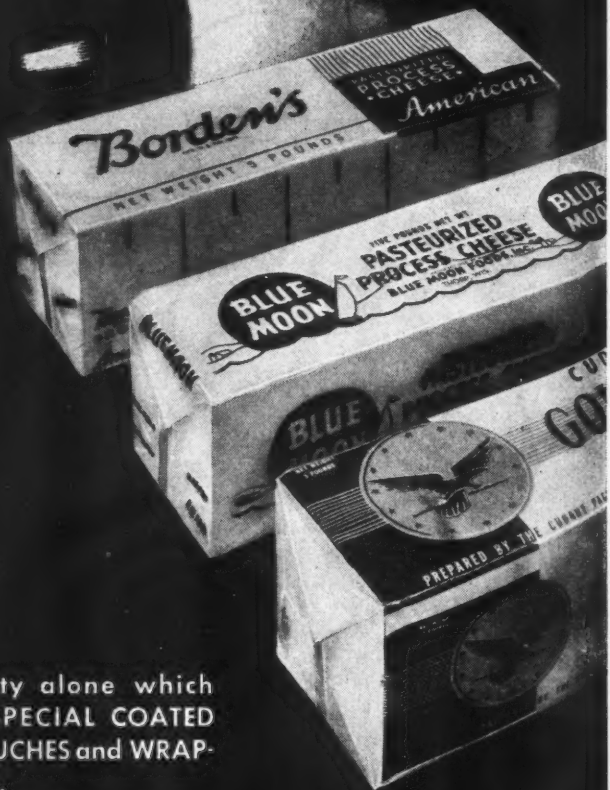
Philadelphia (continued)  
Sprawles & Allen, Inc.  
Portland, Me.  
Casco Paper Box Co.  
Providence, R. I.  
Hope Paper Box Co.  
Taylor Paper Box Co.  
Rockford, Ill.  
Paul Bennett Paper Boxes, Inc.  
Seattle, Wash.  
Puget Sound Paper Box Co.  
Union Paper Box Mfg. Co.  
Somerville, Mass.  
Consolidated Paper Box Co.

St. Louis, Mo.  
Great Western Paper Box Co.  
Moser Paper Box Co.  
F. J. Schleicher Paper Box Co.  
Service Paper Box Co.  
Tampa, Fla.  
Consolidated Box Co., Inc.  
Utica, N. Y.  
Utica Box Co., Inc.  
Watertown, Wis.  
Ira L. Henry Company  
Toronto, Canada  
Fielder Paper Box Co.  
Cooperating Suppliers: Appleton Coated

Paper Company, Blackstone Glazed Paper Company; Bradner Smith & Co.; Louis Dejonge & Co.; Globe Mfg. Co.; Hampden Glazed Paper & Card Co.; Hartford City Paper Co.; Hazen Paper Company; Holyoke Card & Paper Co.; Hughes & Hoffman Company; Lachman-Novasol Paper Co.; Marvellum Company; Matthias Paper Corp.; Nashua Gummed & Coated Paper Co.; Pejepscot Paper Co.; Plastic Coating Corp.; Racquette River Paper Co.; Rexford Paper Company, Stokes & Smith Co.



# EYE APPEAL PLUS...



• It's not beauty alone which makes these SPECIAL COATED CELLOPHANE POUCHES and WRAPPERS outstanding.

The purity and flavor of your cheese are protected by the virtually airtight, transparent, heat-sealed, moisture-proof wrapper.

Available unprinted, or printed in one, two or more colors. Write for samples.

**GENERAL FELT PRODUCTS**  
 DIVISION OF  
**STANDARD CAP AND SEAL CORPORATION**  
 48 THIRTY-FIFTH STREET      BROOKLYN 32, N. Y.



## Whose portrait is this?

**Come the end** of the war, this will be a portrait of the consumer. Once again he will get on his high horse.

He will insist on: Superior merchandise . . . Attractive packaging . . . Low prices. And he will get his way, more and more, as time goes on.

Many businessmen like you are preparing for these days.

### **Clues for you . . .**

We believe we can help you get the favor of the man in the postwar saddle.

In our dealings and experiments for Uncle Sam these past few years, we have developed

many improvements in packaging. We have found new ways to speed packing, improve appearance and saleability.

Perhaps from this war experience, we can develop new ideas that may be adapted to your coming packaging problems.

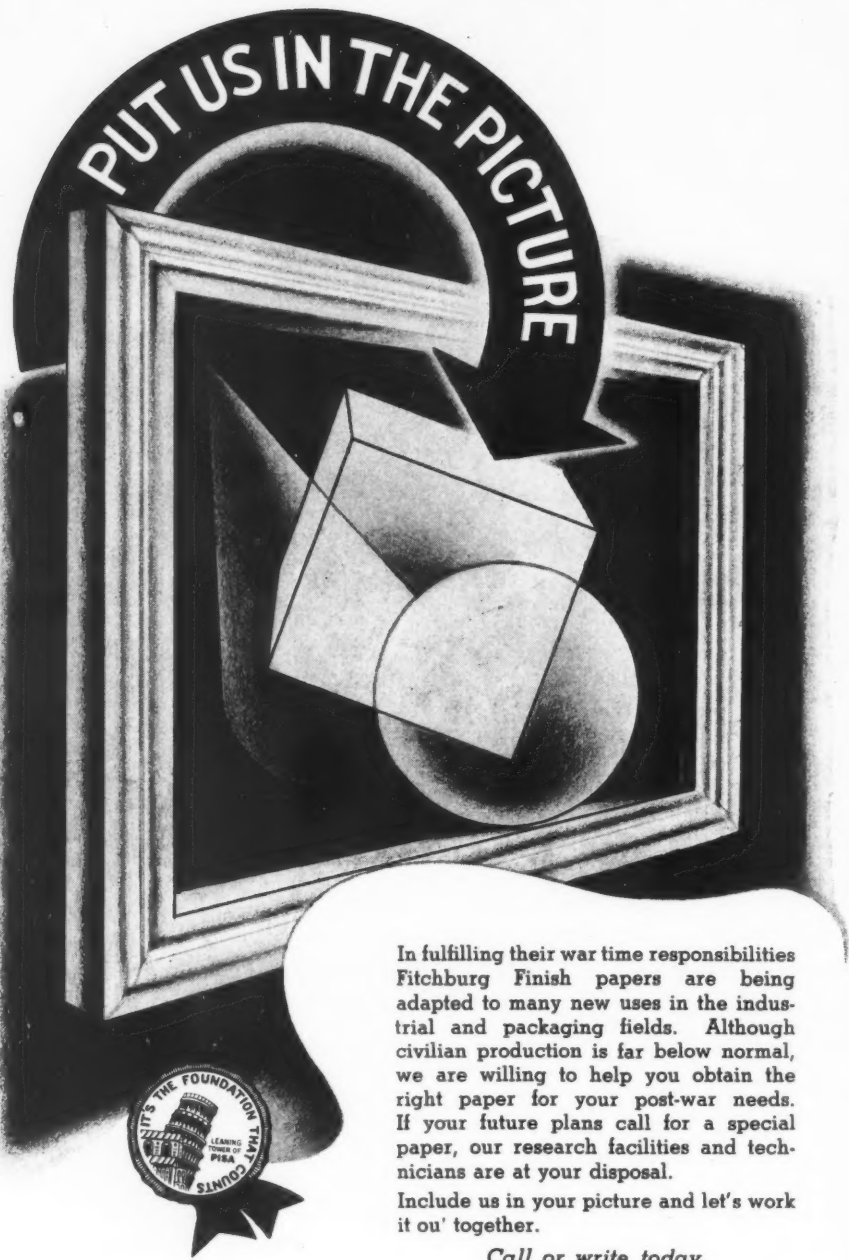
### **Co-operating with you . . .**

At your service are our engineering and research staffs. They will analyze your problems, work with you hand in hand. Why don't you investigate these possibilities? Just call on our local representative, or write to our main office.

## **AMERICAN CAN COMPANY**

230 PARK AVENUE  NEW YORK 17, N. Y.

**THE WORLD'S LARGEST MANUFACTURER OF FIBRE AND METAL CONTAINERS**



In fulfilling their war time responsibilities Fitchburg Finish papers are being adapted to many new uses in the industrial and packaging fields. Although civilian production is far below normal, we are willing to help you obtain the right paper for your post-war needs. If your future plans call for a special paper, our research facilities and technicians are at your disposal.

Include us in your picture and let's work it out together.

*Call or write today.*

## Fitchburg Paper Company

250 PARK AVENUE  
NEW YORK 17, N. Y.

Mills: Fitchburg, Massachusetts

11 SOUTH LASALLE ST.  
CHICAGO 3, ILLINOIS



Good to the Last Squeeze!

That describes an Alcoa Aluminum Tube exactly. They have the stamina required to last until the contents are used. Don't start leaking like a sieve.

In the old days, certain products could not be packed satisfactorily in aluminum tubes. Now, if there is any question of reaction between tube and product, chances are Alcoa's Packaging Laboratory can recommend how to overcome it with a coating inside.

So don't hesitate on that score. The problem now is one of supply, limited by the war. But that may change quickly, and now is the time to prepare for it. Write ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Pa.

## 5 ADVANTAGES OF ALCOA ALUMINUM TUBES

**PURITY..** Aluminum is non-toxic, will not contaminate the product and render it injurious.

**STRENGTH..** Alcoa Aluminum Tubes have sturdy shoulders and sound walls, good to the last squeeze.

**BEAUTY..** Expertly lithographed decorations are crisp, colorful, tops in eye appeal.

**LIGHTNESS..** An appreciable saving in shipping costs results from the light weight of aluminum.

**LOW COST..** You will find the prices of Alcoa Aluminum Tubes to be interestingly low.



# ALCOA ALUMINUM FOIL



U. S.  
Signal  
Corps  
Photograph

From the  
painting by  
Clarence  
Holbrook  
Carter.  
Courtesy  
Alcoa  
Steamship  
Co., Inc.

For Sealing War Bound Shipments Today  
..... Export Shipments Tomorrow .....

look to **SOLSEAL**

WATER-RESISTANT TAPE

**SOLSEAL MEETS JOINT ARMY  
AND NAVY SPECIFICATION J.A.N.  
P-128.**

It was made expressly to meet that specification, under which the use of water repellent tapes on certain shipments is mandatory. SOLSEAL is particularly recommended for sealing interior waterproof packages bound for war zones.

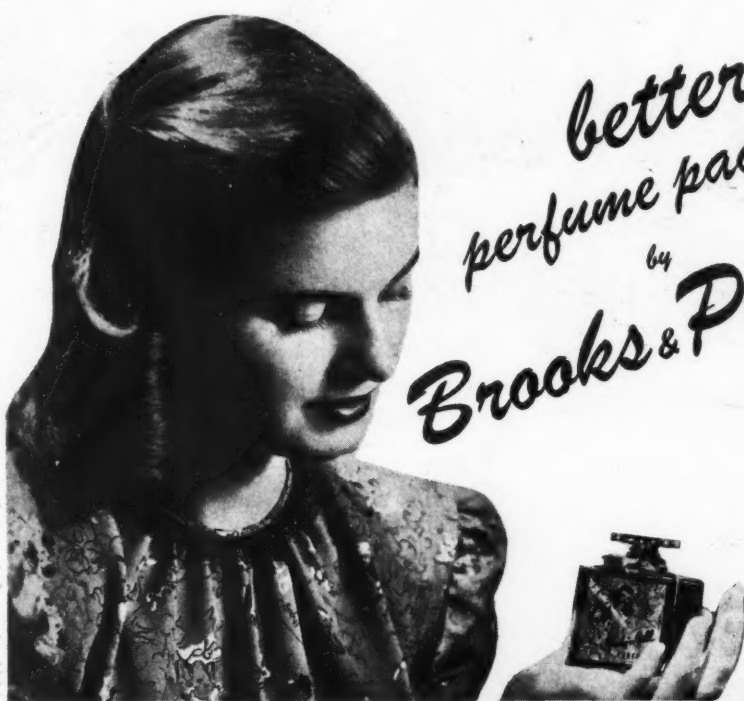
Tomorrow, when Victory is finally ours, SOLSEAL'S highly successful war-tested performance will assure safe sealing for global export shipments by overcoming barriers of heat, cold or moisture extremes!

If water-repellent tape is required on your war shipments or your customers' shipments—get acquainted with SOLSEAL now. Write us for samples or ask your distributor.



**McLAURIN-JONES CO.** . . . 496 **MACLAURIN ST.**  
**BROOKFIELD, MASS.**

OFFICES IN NEW YORK · CHICAGO · LOS ANGELES



*better  
perfume packaging  
by  
Brooks & Porter, Inc.*

*Packaging and Display Specialists for half a century*

**BROOKS & PORTER, INC.**  
304 HUDSON STREET • NEW YORK

COURTESY OF JUDY & JILL CORP., NEW YORK

*Combating* sub-zero cold  
... or the blazing heat



over icy mountain peaks  
of steaming tropical jungles

# FLEXIBLE PACKAGING

is doing a stand-out war-time job!



SUPPLY lines are of little value unless the ordnance, food, and medicine transported over them arrive where needed *in usable condition*.

This vital matériel must often travel through the icy storms of Alaska—over snow-capped mountains in Central Europe—on humid jungle trails in Burma and the South Pacific.

And all along the way, from embarkation point to battlefield depot—these vital supplies need protection against sudden and extreme temperature changes—against water, oil, rust, and corrosion.

Parachuted to earth from the cold clouds—pitched into the water from landing craft—juggled on native backs in the steaming tropics, the battle dress for these combat essentials must be tough, light in weight, and extraordinarily protective!

Flexible packaging is meeting these needs. Here are the reasons why. Fabricators have been able to choose the *right* combination of materials for custom-building each package to rigid Government specification.

There is choice of glassine, cellophane, metal foil, waxed papers, vegetable parchments, and special kraft papers. Fabricators combine these basic materials with newly developed synthetic rubber, metal or plastic films, asphalt or resinous coatings to build flexible packages that save both valuable cargo space and critical materials.

Naturally, this vast war-time undertaking has opened up new avenues for fabricators—brought about the development of many new and unusual types of flexible containers. These, wherever adaptable, will be available in the peace-time tomorrow.

Member companies of the Flexible Packaging Institute will continue their war-time work for the duration, but if you have a peace-time packaging problem, the Institute will be glad to serve and assist you in every way. Simply write to the address below.

MEMBER  
FLEXIBLE PACKAGING INSTITUTE

Allied Paper Bag Corporation, Baltimore, Md.  
American Bag & Paper Co., Philadelphia, Pa.  
The American Paper Goods Co., Kensington, Conn.  
Arkell & Smiths, New York, N. Y.  
Beier & Company, Chicago, Ill.  
Bemis Bros. Bag Co., Indianapolis, Ind.  
Benj. C. Betner Co., Devon, Pa.  
Alfred Bleyer & Co., Brooklyn, N. Y.  
Brown Paper Goods Co., Chicago, Ill.  
Capital Envelope Co., Ltd., Los Angeles, Calif.  
Central States Paper & Bag Co., St. Louis, Mo.  
Central Waxed Paper Company, Chicago, Ill.  
Cupples-Hesse Corporation, St. Louis, Missouri  
Custom-Made Paper Bag Co., Long Island City, N.Y.  
Diaphane Bag Corporation, Philadelphia, Pa.  
Dixie Wax Paper Co.,  
Memphis, Tenn. and Dallas, Texas  
Duplex Coffee Bag Co., Glendale, N. Y.  
The Jaitte Company, Jaitte, Ohio  
Kehr Paper Products Co., Philadelphia, Pa.  
Kellogg Container Division,  
United States Envelope Co., Springfield, Mass.  
Kennedy Car Liner and Bag Company, Inc.,  
Shelbyville, Ind.  
Marathon Corporation, Menasha, Wis.  
Milprint, Inc., Milwaukee, Wis.  
Monaca Bag & Mfg. Co., Inc., Toledo, Ohio  
Moser Bag & Paper Company, Cleveland, Ohio  
Oneida Paper Products, Inc., New York, N. Y.  
Orchard Paper Company, St. Louis, Mo.  
Paramount Paper Products Co., Inc.,  
Philadelphia, Pa.  
Thomas M. Royal & Co., Philadelphia, Pa.  
C. E. Stevens Bros. Inc., Baltimore, Md.  
Union Bag & Paper Corporation, New York, N. Y.  
Western Paper Converting Co., Salem, Oregon

## FLEXIBLE PACKAGING INSTITUTE

369 Lexington Avenue

New York 17, N. Y.

# Clearsite<sup>®</sup> plastic CONTAINERS are

Streamlined  
for Perfect  
Packaging!



... no waste in Space or Breakage

... no excess bulk or weight

- SHATTERPROOF
- SEAMLESS
- FEATHERLITE
- COLORFUL

— but the best dollar-value in eye-appeal, plus shatter-proof protection to contents that money can buy, or ingenuity devise. From three-eighths of an inch to inch-and-a-half diameters, in the height your product needs, full-dress merchandising in lustrous CLEARSITE plastic vials, provides true *economy* and *practical* packaging.

Why not send a sample of your present package and we will submit a CLEARSITE suggestion?

\*Reg. U. S. Patent Off.

Our Package-Engineering Staff will gladly work with you.



## CELLUPLASTIC CORPORATION

40 AVENUE L

NEWARK, N. J.

WEST COAST REPRESENTATIVES: CONTAINER SERVICE CO., 1266 North Western Avenue, Los Angeles 27, Cal.

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N

J. J.

27, Cal.

**Printed Wraps...Up to 4 Colors**

Cellophane, glassine and foil paper wraps . . . Sharp, clearly defined printing . . . Perfect register . . . One, two, three or four colors . . . Rolls and sheets . . . Rolls accurately spot-printed for electric eye operation.

We are now completely set up in new quarters . . . Our facilities have been greatly expanded . . . We therefore extend the invitation to discuss packager's wrapping problems. Our specialties—wraps for foods, cigars, candy and other products. Design services are also available for postwar planning. Inquiries invited!

**ROTO-LITH Ltd**

30-32 WEST 13th ST., NEW YORK 11, N. Y.

CONVERTERS OF  
**SYLVANIA**  
TRADE MARK REGISTERED  
BY  
SYLVANIA INDUSTRIAL CORP.

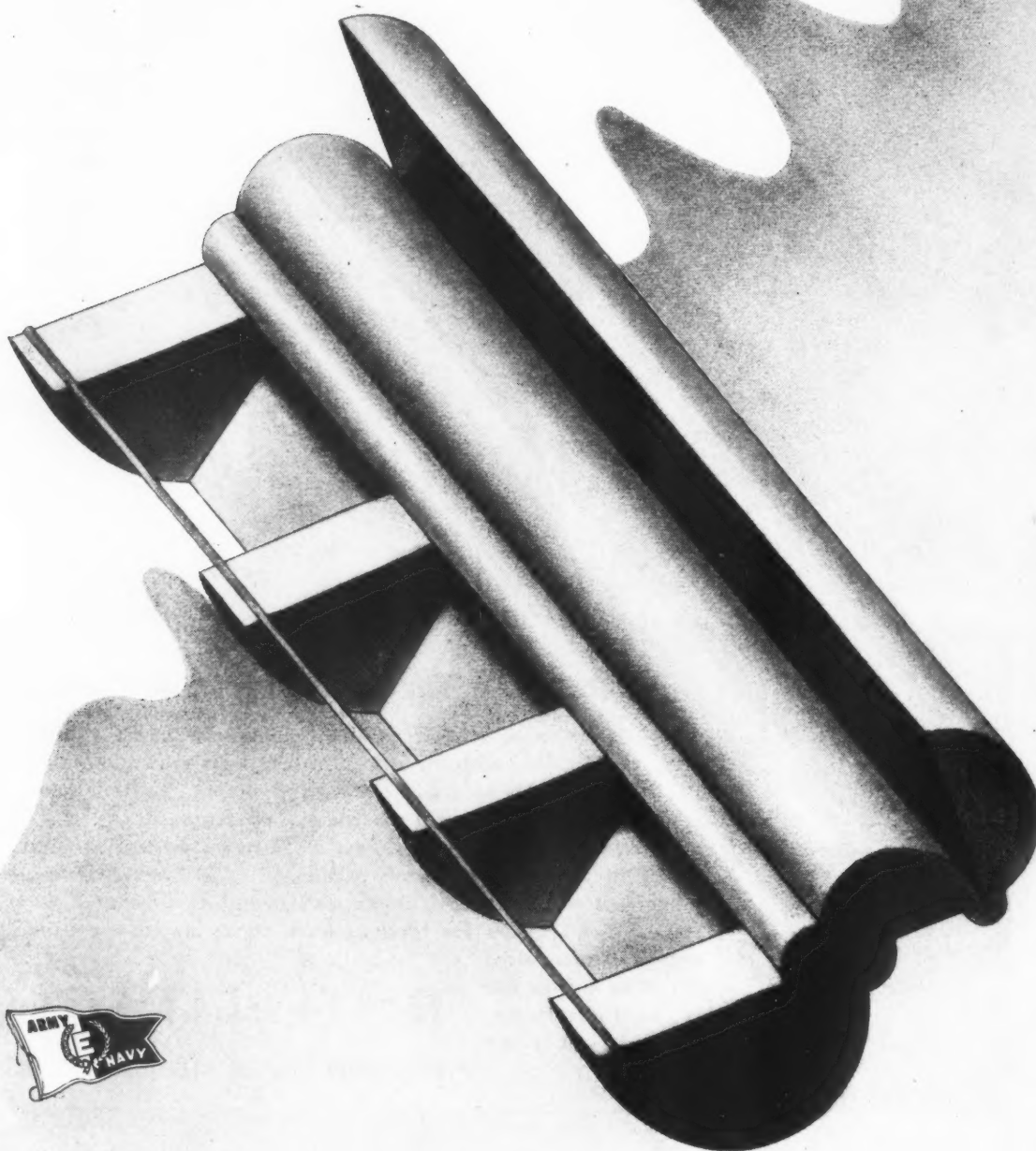
Post-War Trends in

## *Metal* PRESENTATION BOXES

for the Jewelry and Pen and Pencil  
trade will be as unusual as this abstract



ESTABLISHED 1874



F. H. NOBLE & COMPANY 559 West 59th Street Chicago 21, Illinois

# A BETTER PACKAGE FOR HYGROSCOPIC POWDERS

XXXX BRAND  
*Gelatin*  
DESSERT  
NET WEIGHT 2 OZS.



You won't see the foil in this package until you open it. Alcoa Aluminum Foil is laminated to kraft and is on the inside, next to the product where it gives maximum protection.

A heat-sealing medium on the foil permits making the seams and opening of this clever standup envelope airtight and moisture-vaporproof. In such a package, products as highly moisture-sensitive as gelatin desserts, puddings, pectin and whole milk powder can be marketed safely.

This is one of scores of new ideas for using Alcoa Aluminum Foil that are buzzing around

in the design and testing stages today. Among designers, suppliers and users of packages, interest in aluminum foil is greater than it has ever been because war packaging applications have so conclusively proved its superior protective properties.

Consult your package designer or supplier on the application of Alcoa Aluminum Foil to your packaging problems. Or write ALUMINUM COMPANY OF AMERICA, 2129

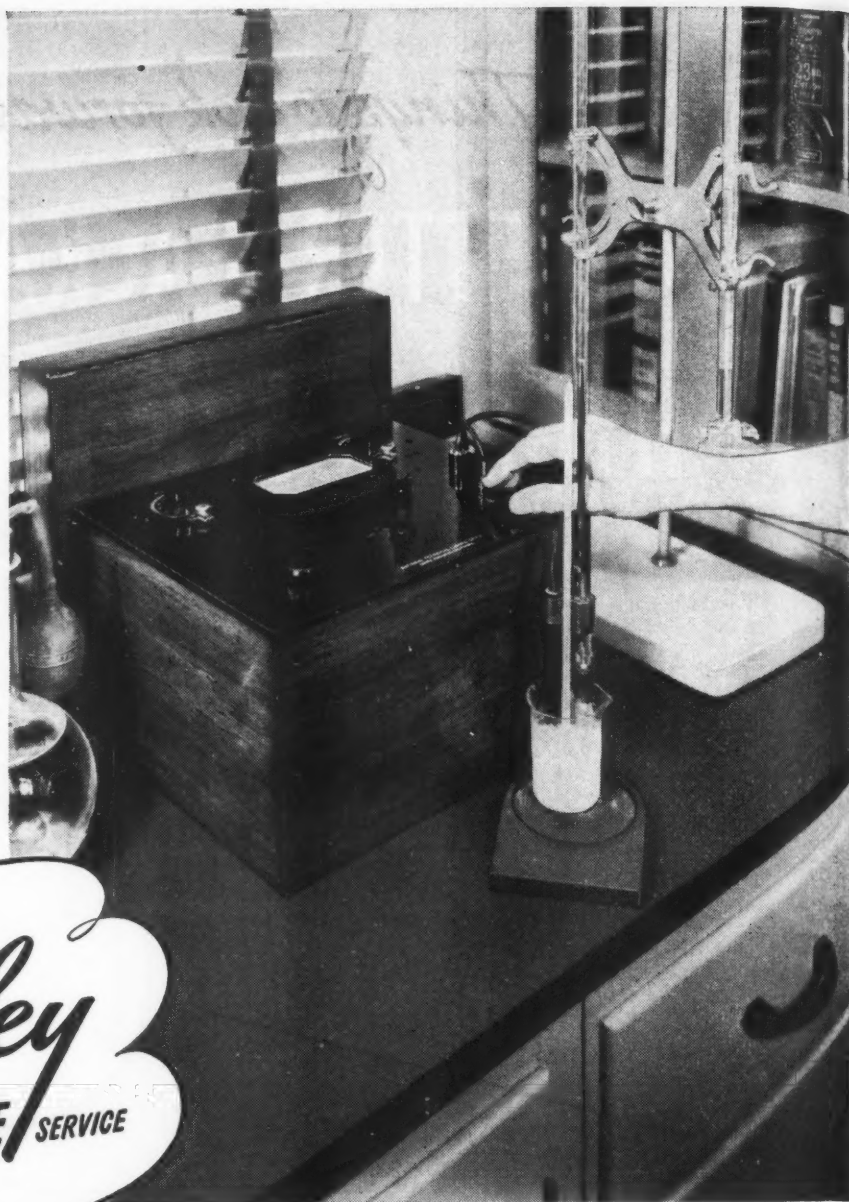
Gulf Building, Pittsburgh 19,  
Pennsylvania.



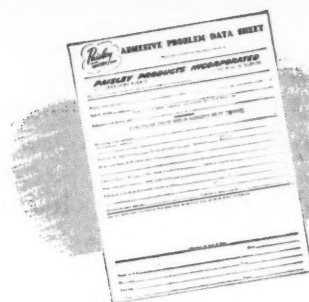
## ALCOA ALUMINUM TUBES

Determining the pH of a dextrine by means of a glass electrode potentiometer. This test is performed several times on every batch as a control for uniformity.

# HOW DO YOU BUY *Adhesives*



**H**AVE you eliminated all the guesswork from your Adhesive purchases? Do you always get the ONE best Adhesive for the job? Modern Paisley Scientific Adhesive Service now brings you not only the most efficient and economical bonding agent for all packaging and manufacturing operations, but assumes responsibility for continued satisfactory performance. Let our skilled Adhesive Chemical Engineers relieve you of all Adhesive worries. Simply tell them your problems on the data sheet we supply. After exhaustive study and laboratory tests, they'll suggest the best, modern Adhesive to use and through periodic testing of laboratory samples keep constant control of its efficiency.



**SEND FOR** this Adhesive Problem Data Sheet. It's your guide to getting the ONE best, most efficient adhesive for the specific operation you describe. Trial shipment will be sent **ON APPROVAL** if desired. If you are not entirely satisfied, we'll gladly cancel the invoice. This skilled laboratory service does not obligate you. It's the **SURE . . .** the modern way to buy adhesives.

## PAISLEY PRODUCTS INCORPORATED

Manufacturers of Glues, Pastes, Resin Adhesives, Cements, and Related Chemical Products  
1770 CANALPORT AVE., CHICAGO 16, ILL. ★ 630 W. 51st STREET, NEW YORK 19, N. Y.

## THE COOK WHO FORGOT THE SALT



*IMAGINE* a cook assembling and blending all the ingredients of a culinary masterpiece, and forgetting the *one* element without which it must taste flat, insipid and unappealing. Or, imagine a manufacturer scrutinizing every feature of a proposed package *except* the selling element.

Perhaps no good cook ever forgets the salt, but many a group of highly intelligent executives, while laboring to procure a successful package, have slighted the *one* element without which NO package can help a product sell.

They have considered material, structure, production and cost . . . capacity to protect, dispense and identify the product . . . what sizes and shapes would be most convenient to handle, to stack and display . . . and have lost sight of the basic fact that, with all those essentials attended to, the *selling power* of a

package *STILL* depends on *how the finished package looks!*

When Ritchie is called upon to

design a package, Ritchie engineers and designers integrate *all* the multiple and complex factors involved to create—at low cost—a functionally efficient package that is *also* pleasingly attractive to the eye! That's why a Package by Ritchie *stands out!* That's why a Package by Ritchie *SELLS!*

### THE 5 ESSENTIALS OF A SELLING PACKAGE

1. It must be practical, production-planned, economical to manufacture, easy to fill or pack.

and conveniently dispense the product.

4. It must *proclaim* the quality and identity of your product.

3. It must be easy to handle, to stack, display.

5. It must be notably "good looking," memorable, ATTRACTIVE!

2. It must fully protect

W. C. *Ritchie* and COMPANY

8844 Baltimore Avenue, Chicago 17

NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • MINNEAPOLIS

Set-Up Paper Boxes • Fibre Cans • Transparent Packages

STEIN-HALL has good glues—both dry and liquid.  
Stein-Hall HAS good glues—both dry and liquid.  
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Stein-Hall has good GLUES—both dry and liquid.  
Stein-Hall has good glues—BOTH dry and liquid.  
Stein-Hall has good glues—both DRY and liquid.  
Stein-Hall has good glues—both dry AND liquid.  
Stein-Hall has good glues—both dry and LIQUID.

79 YEARS OF ADHESIVE SERVICE

**STEIN**

285 MADISON AVENUE • NEW YORK 17, N. Y.  
2841 SOUTH ASHLAND AVENUE • CHICAGO 8, ILL.  
250 VAN HORNE STREET • TORONTO, CANADA



**HALL**

LABORATORIES AT: NEW YORK  
CHICAGO • CHARLOTTE • PROVIDENCE  
LONG ISLAND CITY, N. Y.

THIS IS A

# Good Lamination—

## The kind you get with Socony-Vacuum Microcrystalline Waxes!

● Laminated paper is like a chain. It pulls apart at its weakest point, either in the paper itself or in the bond.

Here's a simple illustration. The sample shown in this picture is grease-proof paper laminated to paper-board with Socony-Vacuum microcrystalline waxes. Under stress, the bond held, while the paper-board failed.

### HIGHLY ADHESIVE, MOISTURE RESISTANT!

Composed of exceptionally fine crystalline particles, these unique waxes now are being used in virtually every kind of lamination. They are inherently adhesive and highly resistant to moisture. In laminations, they form a continuous layer of wax between the paper plies.

This provides a successful bond as well as a moisture-proof barrier.

These waxes are easy to apply and economical to use. They remain flexible at low temperatures, an important factor in laminations for frozen food packaging. See your Socony-Vacuum Representative for performance figures and assistance on application to your laminating operations.

*Call in Socony-Vacuum  
Process Products, Research  
and Service—*

## SOCONY-VACUUM OIL CO., INC.

26 BROADWAY, NEW YORK 4, N. Y.



Standard Oil of N. Y. Div.  
White Star Div. • Lubrite Div.  
Chicago Div. • White Eagle Div.  
Wadhams Div. • Magnolia  
Petroleum Co. • General  
Petroleum Corp. of California

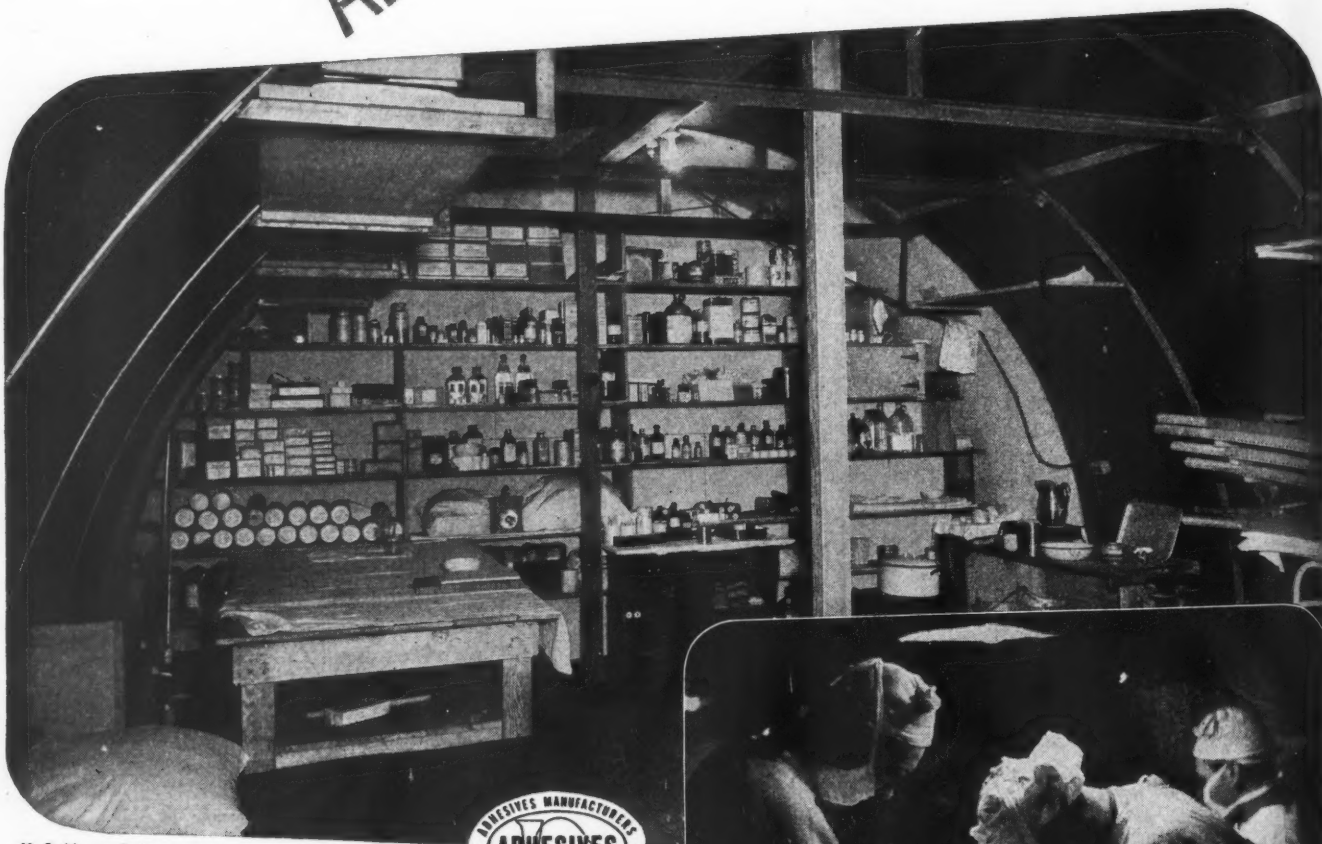
Photo Courtesy Robert Gair Paper Co.

TUNE IN "INFORMATION PLEASE"—MONDAY EVENINGS, 9:30 E.W.T.—NBC

DEPENDABLE

SHARE A GREAT RESPONSIBILITY

ADHESIVES



U. S. Navy photos



**S**TUDY the medical supply shelves of any field hospital close to the front lines — and you'll learn how dependable adhesives assist in the amazingly successful work of the Medical Corps that is saving the lives of 96 to 97% of our wounded fighting men.

Protective packaging . . . against breakage and contamination; and secure labeling . . . for proper identification and usage call for endless variety and versatility in adhesives.

Immersion-proof adhesives must withstand the hazards of amphibious landings. Sterilization-proof adhesives must be impervious to live steam. Moisture-resistant glues must be unaffected by sweating, tropical humidity and dampness. Waterproof adhesives must be immune to the extremes of warm rain and icy refrigeration. Flexible, non-toxic and

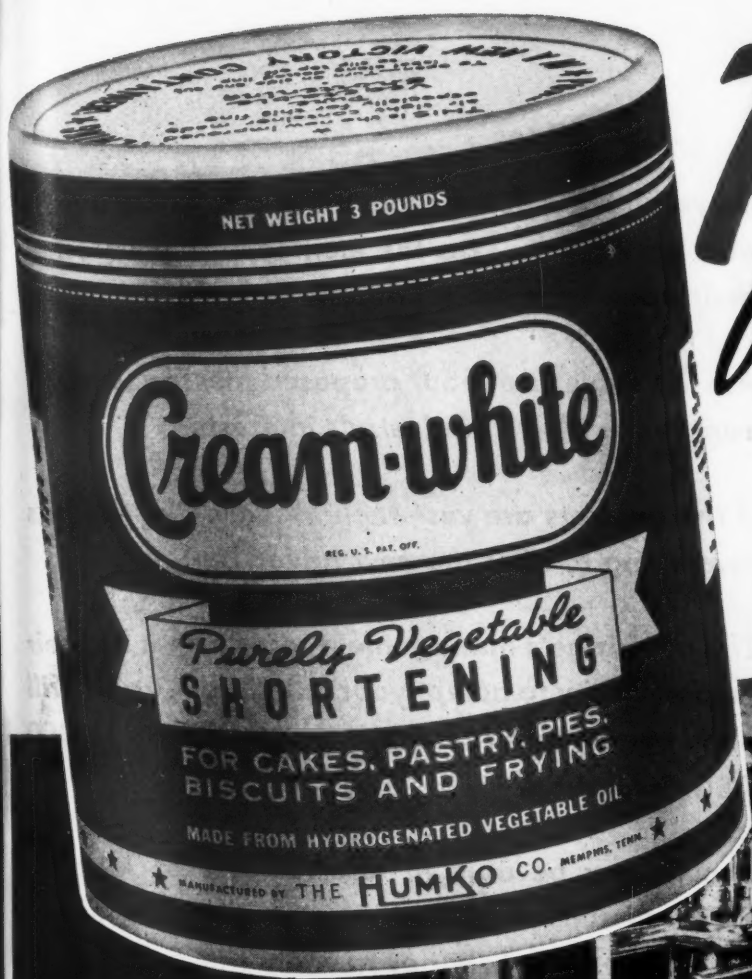


chemical-resistant adhesives must meet rigid drug and pharmaceutical codes.

Providing medical supplies to world-wide fighting fronts in ample quantities . . . on time . . . ready for immediate use is a herculean task. The little known adhesives industry is proud of its contribution in this great work of mercy. We stand ready to make any effort — however large, however small — to help still further.

## Adhesives Manufacturers Association of America

441 Lexington Avenue, New York 17, N. Y.



# TITELOKS

for Protecting  
and Selling  
**GOOD  
FOODS**



MANY GREAT PRODUCTS are packaged in Titeloks. The photograph above shows the modern filling process in the HumKo Co., Memphis, Tenn. plant. These light weight cans have proven very popular for their protection and merchandising advantages. The inside is specially treated to maintain the freshness of shortening, ice cream, sea foods, and other semi-solid products. Though war restrictions now keep us from making further commitments, Sutherland packaging artists and engineers are ready to help you plan exciting new Titelok containers for those glorious unrationed times to come.

## SUTHERLAND PAPER COMPANY

KALAMAZOO 13D, MICHIGAN

**Do You  
Have Something  
to Offer  
the  
Plastics  
Industry?**

*Do you have a deliverable product? . . . An available service? . . . Do the elements of your offer bear upon educational maintenance?*

*Are the subjects of your proposed messages pertinent to the plastics industry's interests?*

*If the answers are yes—then Modern Plastics has something to offer the new advertiser:*

*The magazine's management recognize it as their responsibility to accept your schedule . . . and will bend every effort to present the story to its 11,000 ABC circulation.*

*Should you be able to refer to any of Modern Plastics issues published when paper was plentiful, you will find that even then the publication closely adhered to industry-directed advertising.*

*And . . . while our present-day position has in no way changed, the serious curtailment of paper makes it necessary for us to restate our stand . . . We sincerely believe you will accept it in accordance with good advertising principles.*

*The members of Modern Plastics' home and branch advertising staffs will consider it a privilege to counsel with prospective plastic advertisers or their appointed agencies.*

# **M**ODERN **P**LASTICS MAGAZINE



MEMBER AUDIT BUREAU  
OF CIRCULATIONS

... the only ABC plastics paper ... the field's established institution ... one of America's great industrial publications



**PUBLISHED BY MODERN PLASTICS, INC.**  
122 EAST 42nd STREET, NEW YORK 17, N. Y.  
Chicago • Washington • Cleveland • Los Angeles

# PACKAGES BY MILPRINT

*Designed Today for  
Tomorrow's Competition*



**Make sure your package has the dynamic  
attention value and vivid eye appeal to success-  
fully cope with future merchandising methods  
... super stores ... self service ... modern  
display facilities ... these will create intense  
competitive conditions ... demanding packages  
designed and engineered by specialists ... for  
this type of package consult Milprint today ...**

Plants at: Milwaukee • Philadelphia • Los  
Angeles • Tucson ★ Sales Offices: New  
York • Chicago • Philadelphia • St. Louis  
Los Angeles • San Francisco • Pittsburgh  
Cleveland • Cincinnati • Boston • Dallas  
Indianapolis • Minneapolis • Atlanta  
Kansas City • Grand Rapids

## MILPRINT Inc.

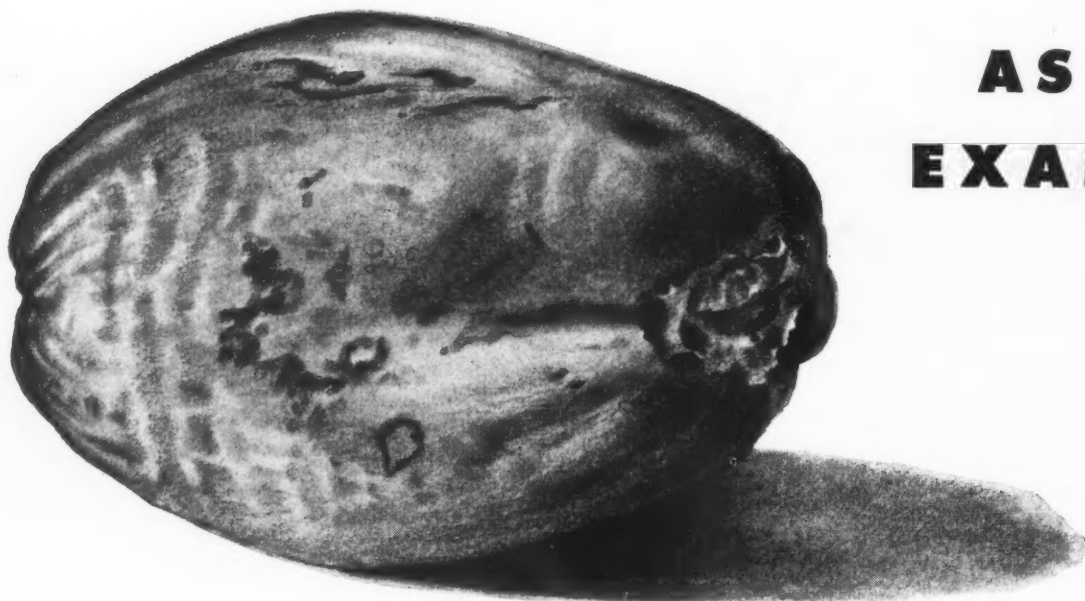
PACKAGING CONVERTERS • PRINTERS • LITHOGRAPHERS

**TAKE THE**

*Cocoanut*

**AS AN**

**EXAMPLE**



*NATURE* gave every cocoanut its own individual "shipping" container. Inside the cocoanut are the meat and milk that require protection if they are to be of value when they reach the user. The fibrous coating supplied by nature, does this job.

The products of industry likewise must be protected in transit if they are to be useful when they arrive at their destinations. And, following nature's example, the best "results" are obtained only when the "package" grows and develops along with the product itself.

Corrugated fibre boxes are used to protect the thousands of different products of industry.

These products are best protected when packaging engineers work along with you when your products are being designed.

Soon the clouds of war will roll away and the experiences we have gained and the new materials developed will enable our engineers to design better containers for your peace-time products.

**INLAND CONTAINER CORPORATION**

**INLAND**  
**CORRUGATED FIBRE BOXES**



INDIANAPOLIS, IND. • MIDDLETOWN, OHIO • EVANSVILLE, IND. • MILWAUKEE, WIS. • DETROIT, MICH.



In Method I\* packing it's Sherman V-28, the super-safe A+ protective paper! It's A+ in many ways:

- ★ Surpasses government specifications for Grade-A\* papers, with the high strength required for the Type II group. Tests over 1800 seconds on turpentine penetration . . . over twice the government minimum!
- ★ Specially treated with a positive corrosion-inhibitor . . . more than non-corrosive, it's anti-corrosive!
- ★ "In union there is strength" . . . SHERMAN V-28 combines a strong neutral Kraft (red) with a tough plastic film, for greater resistance against puncturing.
- ★ A deeply embossed surface makes SHERMAN V-28 more resilient, more pliable, easier to use.

Try SHERMAN V-28 . . . Check its A+ protective qualities. Ask for FREE TRIAL samples . . . and the valuable "Speed-Packaging Manual for War Materiel"

\*U. S. Specifications JAN-P-121, AN-P-12b.

# Sherman

**PAPER PRODUCTS CORPORATION**

Newton Upper Falls 64, Mass.  
Branches in New York, Chicago, Los Angeles



with its 130 photos on better, safer, faster packaging!

(Photo shows Sherman V-28 used in wrapping main landing gear uplock for Republic Thunderbolt.)

### What are your packaging requirements?

Sherman Protective products include many types, for a great range of packaging needs:

Cushion-packaging products for foods.

Baking-Pan Liners — Money-saving, dual-purpose pan-liners and packaging trays.

Cushioning products for safer packaging of every breakable product.

Corroflex — "Cartons in Rolls" — the flexible cushion wrap. For inner or outer packaging.

Grade A and Grade C papers — greaseproof, non-corrosive protection for metal products.

Let us send you free trial samples to meet your needs. Check the coupon, mail today.

Right! We're interested in safer, protective packaging. Send the following (no cost or obligation):

- ☐ Sherman V-28, and "Speed Packing" Manual
- ☐ Other Protective Products

NAME.....

COMPANY.....

STREET.....

CITY & STATE.....

# Merchant Suppliers Paper Co.

606 WEST 49TH STREET, NEW YORK 19, N. Y. • Phone: CO 5-5420

## Packaging Materials for Preservation of Overseas Shipments

*All Items Follow Method of Packing as Specified  
by ARMY, NAVY and SIGNAL CORPS*

### UNIT PACKAGE CARTONS

Folding cartons made according to government specifications. Stock sizes on hand for Immediate Delivery.

### GREASEPROOF PAPERS

Grade A—Types 1 and 2. In rolls, sheets and bags.

Grade C—Types 1 and 2. In rolls and pouches.

### WATERPROOF POUCHES

Greaseproof and waterproof, heat-sealed. Meets all specifications for Method 1A packing. O.K. for use instead of metal foil bags on parts weighing less than 5 lbs. Stock sizes on hand for Immediate Delivery.

### VAPORPROOF POUCHES

Cloth back and paper back, metal foil bags for Method 2 packing. Stock sizes on hand for Immediate Delivery.

## \*WATERPROOF CASE LINERS

Custom-built to fit your case or overwrap your carton. Immediate Delivery of Types C1 and L2

### WATERPROOF PAPERS

Types C, C1 and L2, in 200 yard rolls.

### CORRUGATED PAPER

For cushioning and wrapping metal parts.

### WATERPROOF CEMENT

Approved by Forest Laboratories. Fast drying and easily applied.

### PRESSURE SENSITIVE TAPE

Acetate Fibre, approved as substitute for cloth back. Easy to apply and less expensive. Meets government specifications JAN-P-127.

*Packing List Envelopes, Gummed Sealing Tape, Kraft Wrapping Paper, Etc.*

**\* MANUFACTURED IN OUR PREMISES. THESE CASE LINERS  
ARE THE SUPERIOR, BELLOWS-TYPE THAT SET-UP FAST.  
IMMEDIATE DELIVERY.**

# PERPLEXED ABOUT PROTECTIVE PACKAGING?



PLASTIC FILMS

METAL FOIL LAMINATIONS

CRINKLED KRAFT

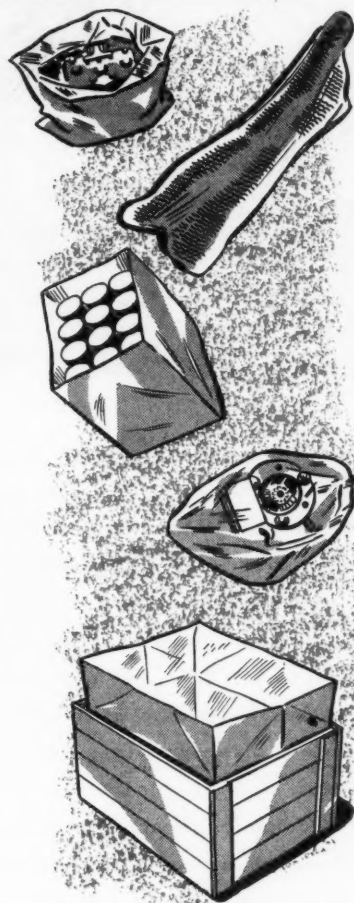
PLAIN KRAFT

WATERPROOF KRAFT

**it's KENNEDY'S business  
to Know which will  
Protect your product best**

No wonder our friend is puzzled! With so many protective materials to choose from, how can he possibly know which is best for packaging his product? Truth is, each material is *good*—each is *best*, in fact, for specific types of protective packaging—depending on the nature of the product, how it is to be shipped, the weather and atmospheric conditions to which it will be exposed.

Long years of experience working with all these materials—in peacetime and war—have thoroughly acquainted Kennedy with the outstanding characteristics and protective advantages of each . . . your assurance that Kennedy *knows* which material will do the job *best* for your product. Equally important, Kennedy has the knowledge, the skill, the facilities for fabricating packaging that will provide maximum protection for your product—at *lowest possible cost*. For the last word in protective packaging—write Kennedy!



*sherman*  
**Kennedy**

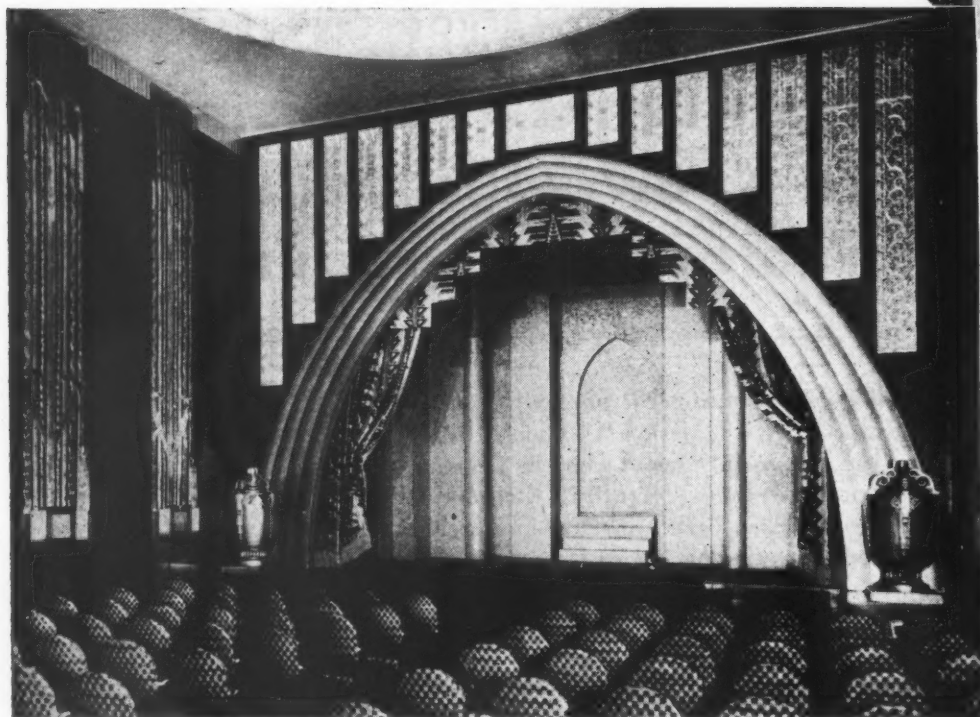
**CAR LINER & BAG COMPANY, INC.**

**PACKAGING PIONEERS ★ SHELBYVILLE, INDIANA**

Canadian Plant: Woodstock, Ontario • Sales Offices: New York, Chicago, Cleveland, Detroit, Kansas City, Los Angeles, Atlanta

**FABRICATORS IN PLIOFILM • SARAN • KOROSEAL • METAL FOIL • CELLOPHANE • WATERPROOF PAPER • KRAFT PAPER**

more importance for your  
New York film presentations  
and meetings . . . . .



## chanin building

122 EAST 42nd STREET  
CORNER LEXINGTON AVENUE  
NEW YORK CITY

**T**he unique and impressive location of the CHANIN AUDITORIUM on the 50th floor of the nationally known CHANIN BUILDING in the heart of New York's Grand Central Zone gives an immediate importance to your film presentation. In the CHANIN AUDITORIUM it is YOUR show, completely separated from other possible conflicting activities, yet quickly accessible to the important, busy executives of many lines of business. About 200 comfortable, opera-type chairs, ample lounges, foyers and express elevators assure the comfort of your guests; while complete, permanently-installed motion picture, stage and broadcasting facilities are all at your disposal for events of the most varied natures and purposes. Space is also available adjoining the Auditorium for displays and serving of refreshments.

For complete information, including available dates for the 1945-1946 season, address

### A FEW RECENT AUDITORIUM CLIENTS

American Bemberg Corp.  
American Paper & Pulp Assn.  
Associated Motion Picture Ad-  
vertisers  
Associated Wool Industries  
Blake-Finn Law Lectures  
Borden-Farm Products  
Calvert-Maryland Distilling Co.  
Cavendish Trading Corp.  
Chevrolet Motor Company  
Wendell P. Colton Advertising Co.  
Columbia Concerts Corp.  
Columbia Pictures Corp.  
Copeland & Thompson, Inc.  
Dwight School  
Educational Film Corp. of America  
General Outdoor Advertising Co.  
Grand Guignol Players  
Horse & Horseman, Inc.  
Kelvinator Corporation  
Lee & Phillips, Inc.  
Lily-Tulip Cup Corp.  
Lockhart International, Inc.  
March of Time  
Martini & Rossi

Metro-Goldwyn-Mayer  
Metropolitan Players  
National Board of Review of Mo-  
tion Pictures  
New York University School of  
Architecture  
Oldtyme Distillers Corp.  
Pan-American Airways System  
Pathe News, Inc.  
Patescope Co. of America, Inc.  
Pedigreed Pictures, Inc.  
Raymond-Whitcomb, Inc.  
Rex Cole, Inc.  
RKO-Radio Pictures, Inc.  
Shell Union Oil Co.  
Sainer-Berkman Bar Study Group  
St. John's University Stagers  
Robert Louis Stevenson School  
The Texas Corporation  
United Artists Corp.  
United Hospital Campaign Commit-  
tee  
Universal Pictures Corp.  
U. S. Resettlement Administration  
Young & Rubicam, Inc.

CHANIN MANAGEMENT, INC. + 122 EAST 42nd ST. + NEW YORK CITY

Here's why Texcel adds to sales appeals  
It modernizes as it seals!

To smarten up your packages,  
To get more sales appeal,  
Use Texcel Tape - it's sturdy, neat -  
To wrap, protect or seal.



Except to plants and such, however,  
We must make this excuse:  
Restrictions still prevent the sale  
Of Texcel for home use.



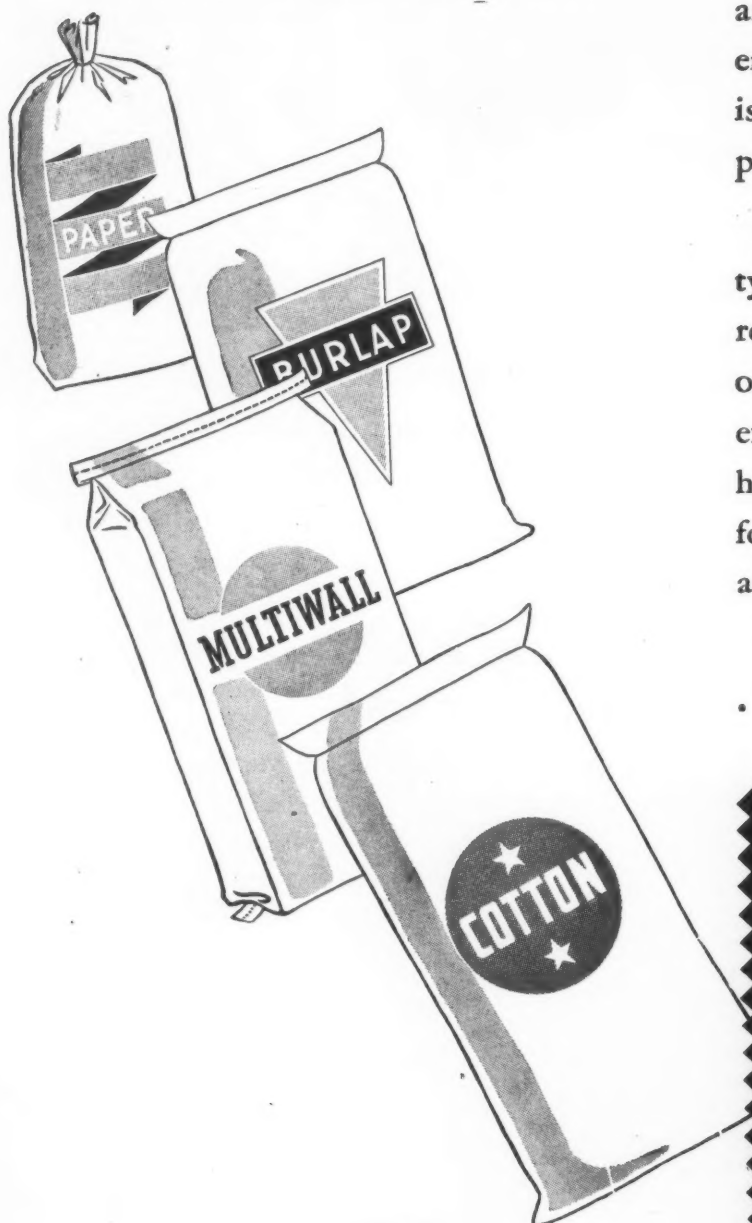
**INDUSTRIAL TAPE CORPORATION**

A Subsidiary of Johnson & Johnson • New Brunswick, N.J.



## Whatever's the **BEST BAG FOR YOUR USE**

**...we make it!**



East Pepperell, Mass.

**W**HEN you buy your bags from Bemis, among the important advantages you enjoy is this: You can buy whatever type is best for your particular use—cotton, paper, multiwall, burlap or waterproof.

Bemis is a leading producer of all types of bags and consequently has no reason to high-pressure you toward any one type. We have no favorites. If our experienced packaging specialists can help you to determine which is the best for your use, you may be sure that their analysis and advice will be unbiased.

Whatever's the *best bag for your use*  
... we make it.

# BEMIS BAGS



## BEMIS BRO. BAG CO.

OFFICES • Baltimore • Boston • Brooklyn • Buffalo • Charlotte  
Chicago • Denver • Detroit • East Pepperell • Houston • Indianapolis  
Kansas City • Los Angeles • Louisville • Memphis • Minneapolis  
Mobile • New Orleans • New York City • Norfolk • Oklahoma City  
Omaha • Peoria • St. Helens, Ore. • Salina • Salt Lake City • San Francisco  
Seattle • Wichita • Wilmington, Calif.

BETTER BAGS SINCE 1858

# SYMBOLS of INTEGRITY

TRADE-MARKS and trade names, accepted by the American public as symbols of value and integrity, are victims of wartime economic upheavals. Continuity of recognition has been interrupted. Come V-Day, an urgent need for re-education of shoppers will be imperative, to maintain successful competition with old and new names and products.

Items ideally suited for directing your advertising messages to shoppers at vital points of purchase and use, include: Displays, posters, booklets and folders, inserts, labels and wrappers, cartons, calendars, educational material. For 83 years the steady forward growth of this company has stemmed from intelligent and honest production of such items, keyed to changing economic conditions.

We have this to offer: A corps of alert creative art and sales executives; the finest in precision equipment, operated by craftsmen; sound financial resources; respected reputation . . . to help YOU plan NOW for successful early postwar selling.

## FORBES

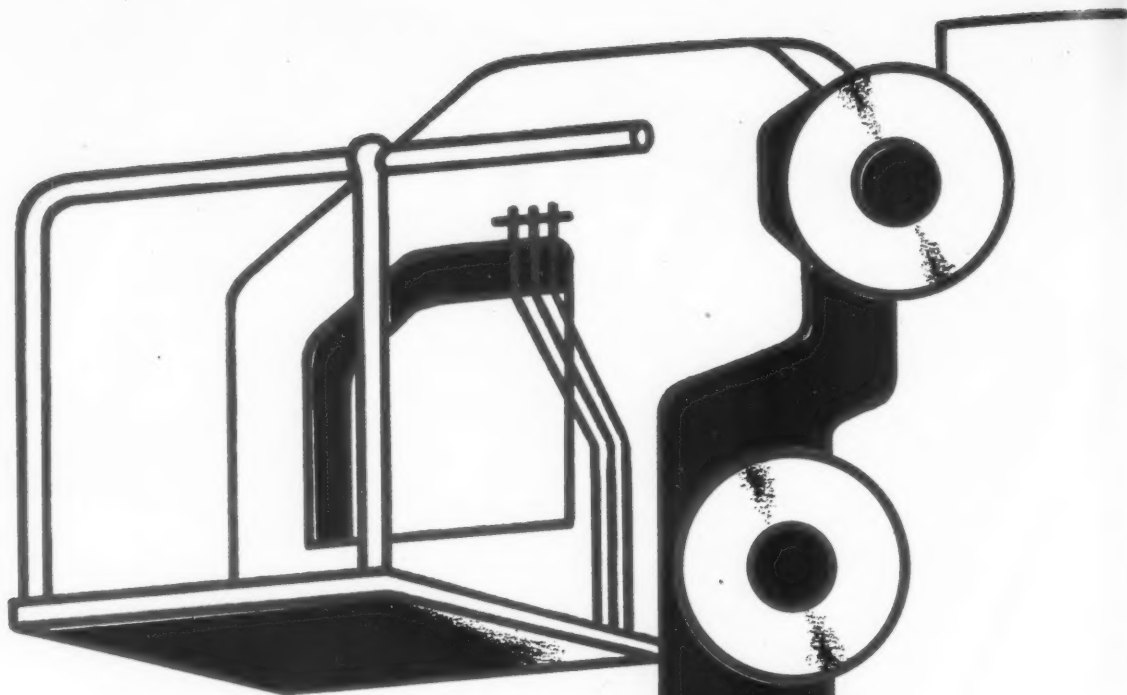
NEW YORK CLEVELAND

LITHOGRAPH CO.

P. O. Box 513 Boston 2

CHICAGO ROCHESTER

**NASHUA WRAPPERS are a sum\* total**



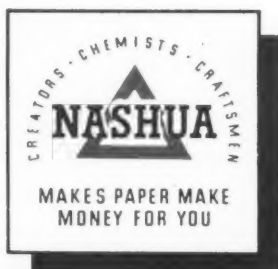
## **EQUIPMENT**

The tools of production are progressively developed and improved through the users' growing knowledge.

Nashua equipment is in keeping with Nashua's experience, production volume and quality standards.

Equipment development is never allowed to lag behind modern methods.

Much of our equipment has been engineered to our needs — to facilitate a better product better produced.



**NASHUA GUMMED AND COATED PAPER COMPANY**

Nashua, New Hampshire

\* EXPERIENCE, EQUIPMENT  
ORGANIZATION  
VERSATILITY, RESEARCH  
CONTROL

# MODERN PACKAGING

VOLUME 18

MAY, 1945

NUMBER 9

## Whither package design? . . . a symposium

From the standpoint of appearance, package design has received little attention in the last few war years. This has been inevitable. There is no need to rehearse the exigencies which the industry has been called upon to meet and, with war specifications paramount, it is no wonder that emphasis has been on production and structure.

The approaching peacetime will benefit by the wartime technological achievements. But will that be enough? Many producers and designers are of the opinion that competition in the coming era will be greater than ever before, that salesmanship will be needed more than ever before. What is more logical than to have the package itself play a leading role in selling? Package appearance is fast staging a comeback. The question is what kind of a comeback?

A number of leading designers were asked to express their thoughts on some of the aspects of future design which will undoubtedly affect present problems. Specifically, the following questions were asked:

1. *Color*—What will be or what should be the principles of color selection, use, spread?
2. *Type*—Will there be any new trends in its use?
3. *Copy*—Will there—or should there be—any new materials in copy text or ideas on the new packages?
4. *Illustrations*—What kinds of illustrations will be used to make packages do a better job—product itself, product in use, users in action; how will the art work be prepared—drawings, color photography, black-and-white photography? Will illustrations be more important than pure design?
5. *What Features Should Be Emphasized*—  

Product name	Brand name	Illustration of use
Trade figure	Producer's name	How or where
Product picture	Trade mark	made
Grade of product	Ingredients	
6. *What Influences Are Dictating These Trends*—Store

1—Unity of design links more than 60 items in this new drug family—yet each branch of the family has its own distinctive color combination. Note how design and typography are adapted to product character.





2

**2—Unusual packages have especial need for informative packaging. These packages accent three vital points: (1) trademark or trade name; (2) descriptive name of product; (3) use.**

arrangement—the purely physical aspect? Method of operation of retail outlets? Consumer buying habits?

Naturally, the answers showed many differences of opinion among the experts—some of them directly contradictory. But as a stimulant for thinking on this coming problem, the comments are extremely valuable. Here they are:

## Color

C. O. WOODBURY—Color will be one of the appealing selling factors in postwar packaging, especially bright colors, as a reaction to the somberness of war. People fortunately have never lost their joy in color.

ALAN BERNI—Many designers today are conducting educational campaigns among their clients to bolster the need for a color change in a new world.

JOHN GORDON RIDEOUT—Regardless of new technologies, color is a natural phenomenon, changeless and subject to the same old principles. Its manner of use will, or should, depend upon the type of emotional appeal desired for any particular package, as well as upon the type of display desired.

WILLIAM O'NEIL—Color must appeal not only to the sophisticated tastes of the so-called intelligentsia, but to the innate senses of the masses. People with pent-up pocketbooks will spend money as directed by the emotions. Appeal to their emotions through color!

TEK OSBORN—Where trade customs are not involved, the selection of color should be almost unlimited.

ROBERT G. NEUBAUER—The use of color in packaging can be broken down to two phases. (1) The aesthetic phase which deals strictly with the atmospheric effect desired for purposes of establishing trade mark or trade recognition and, (2) the technical or practical phase which approaches color from the standpoint of better "lays" of inks, better distribution of ink and easier printing production. Color can suggest warmth, integrity, purity, efficiency and daintiness. Color is atmosphere.

J. GORDON LIPPINCOTT—Color in packaging moves through cycles even as style does. It is basic to remember that color

is an important means of obtaining package distinction in competition.

JOSEPHINE VON MIKLOS—One cannot say that this or that color will come to the fore. We have seen time and again a color or a color scheme achieve success by the sheer weight of unorthodox application. Creative courage is probably the one most important ingredient if color is to do a good job for merchandising.

JON STENGREN—The choice of color and the use of color will be more important than ever before. The chosen colors must not be lost or disadvantageously altered by store lighting. Colors must be chosen that can be faithfully reproduced by television. They must adapt themselves to their setting and display well. A minimum number of colors should be used on any package or "family" group.

GEORGE SAKIER—There are no new colors—but there will be new color combinations. It is the combination of colors that gives a package its character and vitality. If colors are chosen with sure knowledge, to aid and abet each other, printers' variations will be less disastrous and time less destructive.

RUSSEL H. BACH—Certain fields, such as medical supplies, use only appetizing and sanitary colors because of public reaction. On other package designs, color has only to be an accent to attract the customer as his eyes wander over hills of packages. The color should convey the feeling of the product to the customer not as a predominant factor, but rather as a subconscious reaction.

ALFONS BACH—By means of color a package can be dainty or appear small or large. Color can produce an importance which will separate the product from similar products on the shelf. New methods to combine color with a full view package probably will be one of the strong trends.

EVERETT B. ECKLAND—In 1945 the designer must be an absolute color autocrat; what he specifies must hit the paper or cardboard in exactly the shade and tone he specifies and no printer, box maker or intermediary should be given the chance to spoil it. A whole design can be ruined by a so-called "expert" trying to improve the designer's original color scheme. And they'll try every time.

EGMONT ARENS—Women don't like loud colors, but women's opinions of colors for certain articles are worthless from a sales standpoint. We don't want to make pretty packages, we want to make packages that will sell the product.

EMMY ZWEYBRUCK—As to color selection, I always suggest something extremely simple, a reduced color combination which is rather striking and unusual. I personally prefer strong, definite colors. A color harmony like gray and chartreuse can only be used on certain occasions.

RAYMOND LOEWY—The nature of the product, the market, the season, the eventual point of use in the home, etc., will dictate the color treatment. Certain other factors are more important in choosing color than mere eye appeal. One will be the factor of possible soilage. Handling is another restrictor of color. Any conceivable color can be used effectively for fashion-packaging if taste and discretion are exercised.

### Type

MILDRED C. LUCAS—Type should be legible and quickly and easily read to catch the eye and understanding of a purchaser walking by a counter or driving past a window.

TEK OSBORN—Type faces should be selected in accordance with the amount of reading matter to be shown on the package and it is our opinion that the trend toward its use will be—less of it!

BEN KOODIN—Certain type styles have successfully proved themselves in packaging—others to come will be equally good. We have found that a sans-serif or gothic type for the body matter is preferable for reproduction. We invariably use hand lettering for the important message (logotype and name of product) so that by itself it can be instantly identified, thereby becoming a valuable asset in the advertising and promotion of the item.

ROBERT G. NEUBAUER—Undoubtedly there will be new type faces but they will be along the lines of currently used faces that lend themselves to reproduction. Present packaging laws make it mandatory that all copy on packages be legible. This means that sales copy intended to do a practical sales job must be quickly legible.

CHARLES CRUZE—The trend in type is toward the elimination of irrelevant, decorative faces. It is not necessary to go

ultra-modern to add newness to a package. The use of more middle-tone type faces in minor selling points is desirable.

JON STENGREN—Type will be the speaker's voice. It must speak clearly even when it whispers. It must be legible from a distance or when an overall reduction is made. In many cases a package will be dependent on type for distinctive appearance and display value.

RAYMOND LOEWY—Intelligent layout in typography is important. The relationship of space and proportion has a definite psychological effect on sales. Some of the best looking packages of recent years have involved nothing more than careful rearrangement and proportioning of existing type.

GEORGE SAKIER—Type is inseparable from layout idea—whether we have new types or not. A bold layout idea can use even an old engraved script and be potent, high-grade “buckeye”—and a subtle layout idea with the boldest of modern type can be exquisite “high style.”

RUSSEL H. BACH—Cleanly styled letters may be individually designed for each problem; designed to bring out the ideas of bulk, beauty, quality or any characteristic attribute of the product. Type should be used to tell the complete story at a glance.

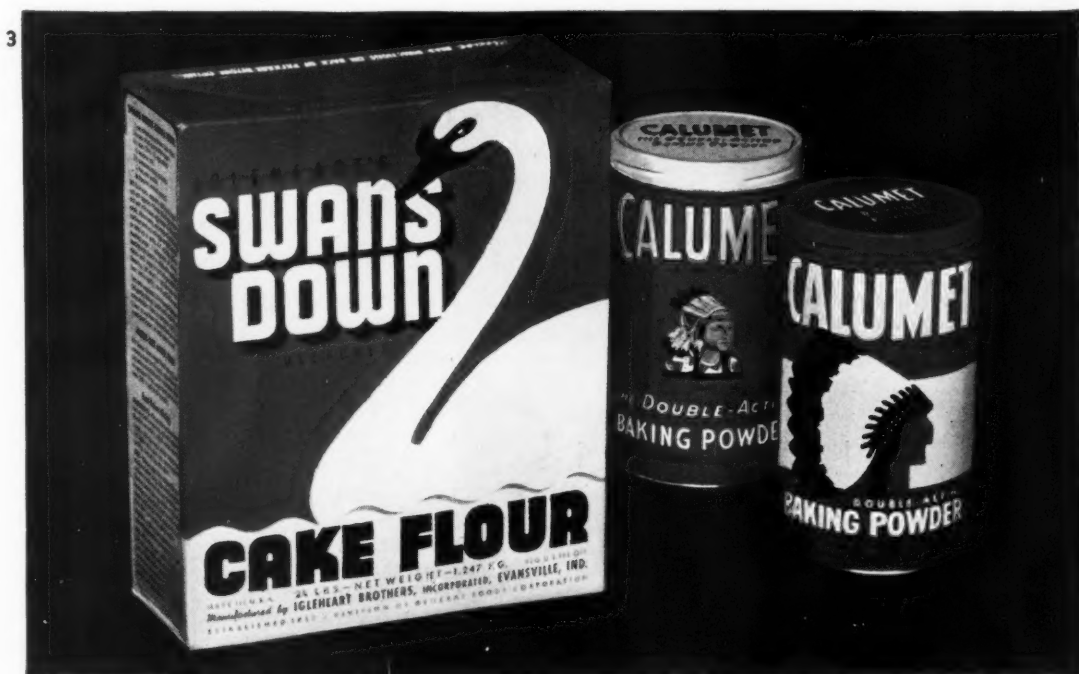
FRANK CONDON—New trends in use of type, lettering, illustration, etc., can undoubtedly be expected. For example, there may be a swing away from Futura and similar block faces (it certainly is past due!) to more readable, if less modern, types. There will be new trends—but, what of it? Trends have little to do with the efficiency of packaging. New styles are important in advertising, but a package is not a thing that lives for but a few days; it must be built on firmer ground.

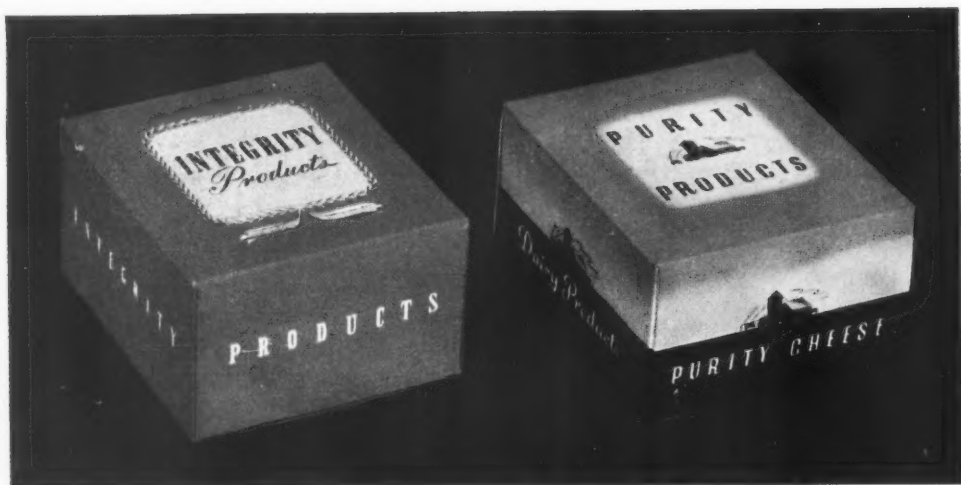
### Copy

ALAN BERNI—In my opinion the face of the package should be applicable to a miniature poster display containing three essential parts. They are: the trade mark or trade name, the title of the product and a subordinate line of copy pertaining to the product's use. Where legislation demands that contents be listed, this should not be permitted to detract from the poster-like quality of the package design.

WILLIAM O'NEIL—There will be new ideas that will come

3—Quick identity marks and the recognition value of design or pattern take precedence over exact color matching in these food packages.





4—Use of color and design to create impressions. Two hypothetical packages: one designed to develop confidence in the integrity of the product; the other to stress cleanliness and purity.

from radio programs and national advertising that will influence packaging copy. I can see a package with no identification except the direction of attention to the free premium it contains and to the radio program which advertises the product. Perhaps this is the new trend.

TEK OSBORN—Voluminous copy should be handled in separate literature. When it is necessary for directions to appear on a package, the treatment should be simple. Description should not be too glowing in character, but mere statement of fact. Recipes are an asset on a package—provided they do not conflict with good design.

BEN KOODIN—Copy on the package must have a definite informative and selling function. We try not to use informative copy as part of the basic design but to position it where it can be clearly and quickly read.

CHARLES CRUZE—Copy should be governed by the thought that the package is an advertisement for the product it contains. Copy should be changed with the seasons for products which have uses that vary with the seasons.

EMMY ZWEYBRUCK—An unusual text or slogan in connection

with a good and modern packaging design will always be desirable.

EVERETT B. ECKLAND—Copy should be of few words. It should ring out the old language and ring in the new.

C. O. WOODBURY—Far too many packages lack the one-two-three clarity in copy and design—first the name of the product, then a short, clear explanation of what it is for or what it will do, then whatever supplementary copy is necessary.

JON STENGREN—Copy will be restricted to bare essentials and used as a type decoration or color pattern.

JAMES HARLEY NASH—We are definitely recommending one display face, using the back of the package for recipes and other appropriate applications. It is a waste of valuable space to duplicate the face of the package on the back. I think women are studying packages, depending on them for help in the kitchen.

## Illustrations

JOSEPHINE VON MIKLOS—The use of illustration or design will depend on what the package is selling. In many cases design can be made of illustration. New methods of printing, new inks, new materials, will determine the economic advisability of one type of illustration as against another. The type of market, which means type of taste, will always be a prime consideration.

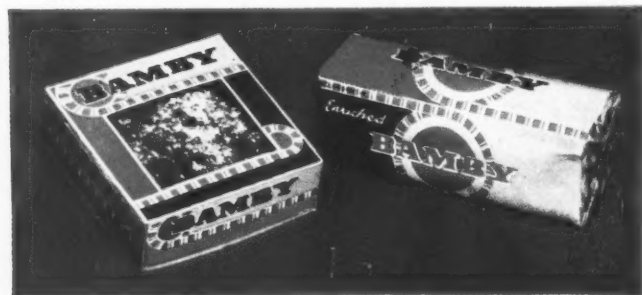
MILDRED C. LUCAS—Illustrations should be simple to give color prominence. Detailed pictorial scenes tend to distract the eye and mind, and to confuse the issue. Purchasers remember simple, pleasing packages that do not require too much mental stress for immediate identification or memory.

ALAN BERNI—The product must be the governing factor in the type of art work to be used on a package. Photography rings the bell on an inanimate product, yet fruit cake that must definitely sell on "taste" is best portrayed through an appetizing pictorial.

HERBERT BAYER—I hope illustrations, especially color photographs, will not play a more important role than pure design. The domineering application of a naturalistic illustration is necessarily opposed to any three dimensional conception of a package.

TEK OSBORN—We would not say that illustrations are by any means more important than pure design. Color photography is most effective, if the product lends itself to this medium. Black-and-white illustration, however, can be made very forceful and direct and is considerably cheaper to reproduce than color. Pure simple design can be exceedingly

5—Two new bakery packages. Simplicity of design and clever use of contrasting colors make them standouts. 6—Bold pirate on toy package is sure to attract child's eye.



beautiful and strong. "Family" designing may also be a factor in governing the amount of illustration, if any, to be used.

J. GORDON LIPPINCOTT—From the point of sales display, illustrations will stimulate greater interest than will pure design. On packages, fine drawing will be superior to color photography and black-and-white photography because of its greater simplicity, hence greater punch.

CHARLES CRUZE—The trend is away from pictorial illustrations and toward design, which is less distracting. There are no rigid rules regarding illustration. Its functions are (1) to show the product when it is concealed from view by the container, (2) to demonstrate the purpose or use of the product and (3) to display trade characters. Pictorial illustrations are good if the product is meant to appeal to children.

EMMY ZWEYBRUCK—Good packaging should be the symbol of an idea. The simpler the design, the stronger the results. Pure design will always have a higher artistic value than other treatments, but a combination of lettering and outstanding photography is likely to be very successful, because photography is easily understood by large masses of people.

C. O. WOODBURY—The public will always enjoy pictures, yet I am hoping for a growing understanding of symbolisms such as those now appearing in some of our more advanced designing. The use of symbolism permits a greater play of the designer's imagination and lends to his work the attractiveness of the unusual.

RUSSEL H. BACH—Illustrations in color photography will be increasingly used. They bring out a richness of the product that the eye does not always detect in the product itself.

JAMES HARLEY NASH—Frankly, I have been disappointed with photography as a means to portray foods. At present I am using paintings—working closely with the engravers to get the best results. Although I have seen some very fine reproductions made by photography, I believe I will get the results I want better with paintings, at no extra cost.

### What features should be emphasized?

JOHN GORDON RIDEOUT—Features to be emphasized on the package depend entirely on the product, its relation to competition, its acceptance in the field, method of distribution, the kind and weight of the advertising behind it and many other considerations. Correctly analyze the job to be done, then you know what to feature.

JOSEPHINE VON MIKLOS—Product or brand name, as well as trade mark, if existing, ought to be emphasized first. Above all, a package should be an honest kind of garment.

FRANK CONDON—Unless the package is based on a cautious survey of what is required by the distributor and the retailer, as well as the ultimate buyer, it is not likely to do the full job. There might be good reason for emphasizing the brand name on one line of packages and equally good reason for subordinating it on another line.

MILDRED C. LUCAS—Next to color, the most important feature to be emphasized is the product name. If the product is of a new brand, the manufacturer's identity should be established in an accessible spot.

JAMES HARLEY NASH—I am a strong believer in brand identification. This can be accomplished by a trade mark, trade figure or the popular brand name. I use illustrations where they are necessary, but avoid them if possible to simplify production problems.

LADISLAV SUTNAR—I feel that there still has not been enough emphasis on one function which packaging should perform—that of identification. Like a book jacket, the package should be suggestive of content; arousing interest before

the story is read. People identify a product by its packaging. Easy identification promotes repeat sales, through memory. Symbols and shapes, brief text, legible type and new uses of attractive material will all help to accomplish this.

WILLIAM O'NEIL—There will be a trend toward identifying products by initials, instead of by long names; trade marks will take on a simplicity to be understood in the broad markets of the world.

### What influences dictate these trends?

MILDRED C. LUCAS—Store arrangement from the purely physical aspect points to the pleasing color and prominence of the name of the product. Designers should at all times recognize that the buying public is in a hurry, mostly feminine and fairly young.

ALAN BERNI—Above all, the designer must remember to be an average individual with average tastes, never creating a package above or below the normal acceptance of the ordinary consumer.

JOHN GORDON RIDEOUT—Consumer buying habits will and should be the most important governing factor in package design.

J. GORDON LIPPINCOTT—The main factors influencing trends in package design are sales displays and consumer buying habits. Both these features throw emphasis on the memory value and display angles of design.

RUSSEL H. BACH—The use of windows and the extensive use of glass containers will give illustration stiff competition. The housewife is accustomed to examining the contents of a container before she buys. She won't be easily convinced that a completely covered article, represented by a fancy picture, is better than an article she can actually see.

ALFONS BACH—A great deal of interest and emphasis will be given to re-usable container packaging. This type of semi-premium development might influence the packaging trend toward an entirely different direction. Materials, heretofore unused, may also have considerable bearing on packaging design developments.

CHARLES CRUZE—Open displays are influencing store arrangements. They contribute to the convenience of the "pick it up and buy" habit of the consumer.

### Other aspects

BEN KOODIN—We have always followed the premise that package design is the control of appearance so as to project the product's identity and character quickly and pleasantly, plus the invention and engineering of utility and protection.

EVERETT B. ECKLAND—The public is not going to like new products and new packages merely because they are new. Slam-bang art, overnight lettering, copy-cat modernistic touches may well be the kiss of death.

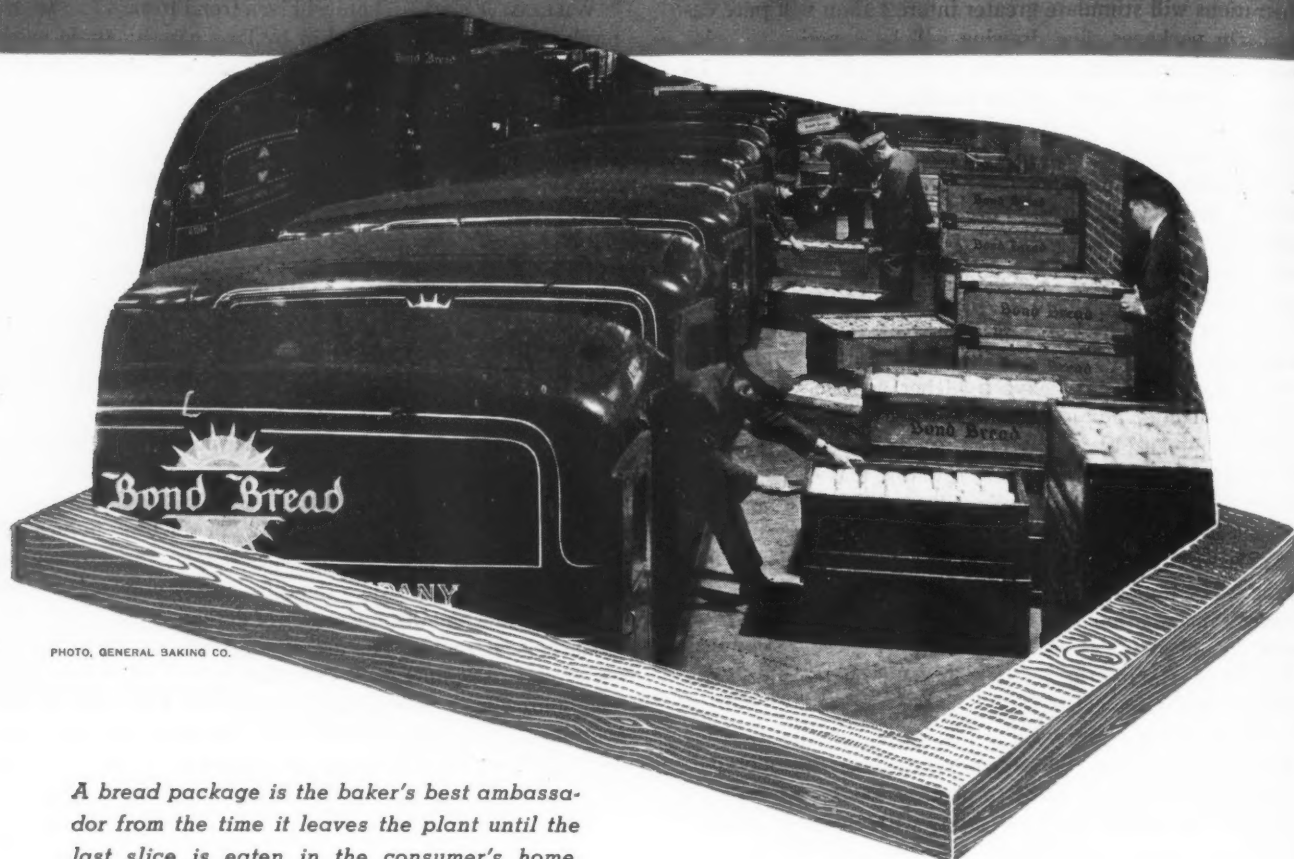
GEORGE SAKIER—The primary consideration in packaging design is to convey the quality of freshness—new, attractive, desirable merchandise.

JON STENGREN—Just as the people of America are dressed in the best taste in keeping with the occasion, so packages, old to them, must be clothed in similar good taste. The keynote for design will be that simplicity which leads to efficiency, economy and good taste.

LADISLAV SUTNAR—In the future design of packaging, I hope to see a closer coordination between a product's advertising and the designing of its container. When the package "idea" is carried out in the advertising campaign it can double the value of both the good package and the successful campaign.

JOHN E. ALCOTT—I believe (Continued on page 178)

# Bakery packaging ... what's wanted postwar



PHOTO, GENERAL BAKING CO.

*A bread package is the baker's best ambassador from the time it leaves the plant until the last slice is eaten in the consumer's home.*

Up on Broadway at 231st Street, New York City, the Great Atlantic and Pacific Tea Co. has opened a baked goods department that runs the full length of a supermarket.

A & P's own bakeries are equipped to supply this department with 450 different items—120 a week, 40 different items a day—bread, cakes, pies, sweet goods.

About half the cases are stocked with packaged goods—breads, cakes, sweet goods; the other half with unpackaged cakes, cookies, buns, pies, the way they are displayed in a retail bake shop—to be selected from the case and packaged in the store for carrying home in cartons, wrappers or bags. This new development is part of A & P's program of revamping its supermarkets into what it likes to call food department stores. A further service will be a catalog of special baked goods from which the shopper may order ahead such items as birthday cakes, wedding cakes, etc., illustrated and described for variety, price, size and packaging.

Already A & P has similar baked goods departments in 60 other of its supermarkets. H. W. Gilb, director of A & P's National bakery division, predicts this type of baked goods department in 1,000 supermarkets within three years.

A & P wants all of its customers' business for baked goods. It doesn't want them to go down the street a block to pick up that cake or coffee ring they usually get elsewhere because it tastes better.

It is giving women, who buy practically all baked goods, what they want. It put a woman, Ruth Vogel, now merchandising manager of the A & P bakery chain, in charge of a staff of some 20 or 30 women interviewers to ask regular customers of its markets in test areas just what kind of baked goods they preferred. When A & P got the answers, it planned

its test department in New York for what women said they liked.

Some 17,000 national and independent wholesale bakers throughout the country are frankly worried about how to meet this kind of competition from the chains. The game is all the more exciting because of the efficient economic control the chains, which do their own baking, have over buying, production and distribution facilities. The whole problem is built around one of the largest classifications of packaged merchandise. Success may depend on how the package problem is approached.

## \$2,500,000,000 industry

Currently the baking industry is undergoing a tremendous expansion in sales volume. According to Department of Commerce reports, the total value of baked products in 1935 was \$1,235,000,000. The same reports indicate that in 1939 it had climbed to \$1,411,000,000. The 1943 estimate was \$2,075,000,000. No later figures are available, but a conservative estimate is that a total of \$2,500,000,000 would probably not be far off.

Reasons for the tremendous wartime growth are obvious:

1. Greater demands for baked goods because women in war work and other activity outside the home have had less time to do their own baking.
2. Improved quality of commercial baked goods.
3. Increased demand because of the difficulty of obtaining sugar, shortening and rationed items for home baking.
4. More money to spend for the convenience of buying ready baked goods.

Baked goods department in A & P supermarket runs entire length of store, is serviced daily by A & P bakeries. Company predicts similar departments in 1,000 of its food department stores within the next three years.



Authorities believe that much of the gain registered by the baking industry will be maintained postwar. Figures show that prior to World War I the sales of bakery goods were approximately half a billion dollars. In 1921 they were over a billion, in 1929 one and a half billion. Before World War I per capita consumption was \$5.02 annually; moved up to \$12.56 in 1929, to \$15.60 in 1943 and is even higher today.

The trend in volume has been constantly upward. This has been due to many factors—increase of population, changing ways of living and greater demand for the convenience of ready baked goods, improvement in quality of commercially baked products, automobile transportation which widened marketing areas, aggressive merchandising of bakery consolidations. But none of this growth could have been accomplished without packaging to distribute quality products over a wide area and keep them clean and fresh.

Packaging supplies for the baking industry probably mean a tidy sum of \$250,000,000 a year to paper, cellophane, carton bag and shipping container manufacturers and converters and to package machinery manufacturers—maybe more. This fact alone means that suppliers in all lines who can serve this industry will be after its business as soon as they have something to sell after the war.

Because of the nature of the baking industry, all indications are that bakers are becoming more package conscious than they have been in a decade.

This article is not concerned with crackers and biscuits which are shelf-packaged for longer life, but with quick-turnover business of breads, cakes, sweet goods and pies, baked and packaged daily and distributed within a radius of not more than 50 to 100 miles from the wholesale bakery. It deals with fresh baked products retailing at comparatively low cost, that have to be wrapped at fairly high production speed and that require the maximum of careful protection and handling to get them to the consumer fresh and appetizing.

#### Sales drop without cellophane

The baking industry volume item—white bread—is in the category of what economists call pure competition. One seller's bread is pretty much the same as another's. There's very little you can do about shaving the price and there is not much chance for adding a costly wrapper. You can't afford more than a cent, say, for a white bread wrapper.



Above and below: Bread wrapped in lacquer-coated glassine. This material has tested to within 85% the clarity of cellophane and will sell at two-thirds the price of cellophane, according to the manufacturers.

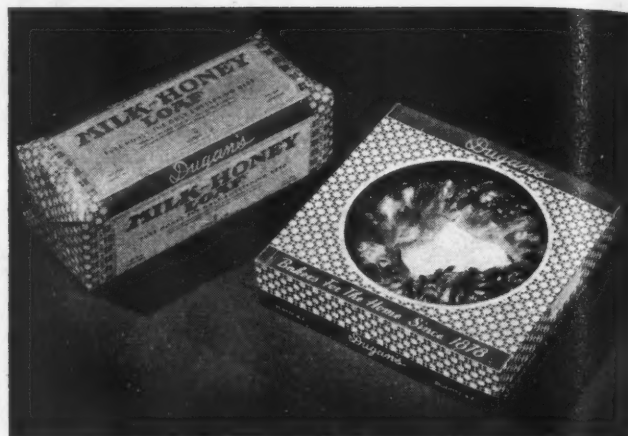


If you have been a baker these last few years, you know, however, that when you had to take cellophane off your specialty breads, your sales dropped about 20% on such items—some bakers said as much as 25%.

You know that your money makers are your specialty items—your special breads, your cakes and sweet goods. These you definitely know will not sell in today's competitive markets without visible packaging. And the more visible they are, you say, the better they sell. A window carton does not sell a cake as well as an overall visible wrap, although the latter is structurally weaker and harder for salesmen to handle. You can afford to spend the extra price for visible



*Whimsical baker trade figures, plenty of white space give a feminine appeal to these current packages.*



*Striking checkered design identifies the wrappers and cartons used for all of Dugan Bros. packages.*

packaging on the specialties, however, because here you can charge a little more for the product because you are selling something that can be a little different from your competitors.

You know that the appearance of your product on store shelves, particularly in self-service stores, must be top notch to catch impulse sales, so you are looking for better trays or containers that will give better protection to your cakes and pies from the bakery into trucks, from trucks into stores and on to the shelves. You know that self-service is on the increase even among independent stores. Figures show that 18.3% of independent grocery and combination stores had complete self-service in 1944 in comparison with 11% in 1942.

Perhaps you operate home delivery routes. You are interested in lighter weight carrying baskets for your delivery salesmen, who in normal times serve an average of 200 customers, carrying a load of substantial poundage back and forth from truck to house so that the housewife has a complete selection of the day's specialties. Today some house-to-house route salesmen are serving as many as 350 customers.

### Questions bakers are asking

That's why you are asking questions like these about what you may expect in bakery packaging in the future:

Will all white bread be wrapped in cellophane after the war?

To what extent have cellophane production facilities been enlarged and how much lower will cellophane be per pound?

Can opaque paper compete with transparent materials in the food fields by use of more color and more attractive design?

Has any economical process been worked out for printing four-color process on cellophane?

Is there any way to get greater visibility packages for fragile items like cake without sacrificing structural properties?

What are the possibilities of using foil as a bread wrapper?

What has happened to the lacquered wraps we heard so much about just before the war?

What are the wood, fibre and corrugated box manufacturers doing to help us work out containers for transporting our fragile items from bakeries to stores? Is there any plastic material for this purpose?

When can we expect more high-speed bread wrapping machinery equipped with the electric eye for accurate registry?

The visibility package is the subject that gets the most emphasis wherever you go in the baking industry. All bakers like it, because they have seen the results on the specialty

items, but they want it cheaper and they want it printed in colors at a price they can afford. On the other hand, there are those who claim it would be a mistake to have all packages alike and that there is a good place for opaque materials, aside from cost advantages if for no reason than variety.

### Types of bread wrappers

Perhaps a brief résumé of the principal materials used for bread wrapping would be helpful to explain the advantages of each type. These materials are classified as follows:

1. Low finish bleached sulphite—used mostly for large institutional and restaurant loaves where eye appeal of the package is not so important.
2. Opaque waxed sulphite—has more shine and opacity due to use of titanium and clay coating.
3. Waxed transparent sulphite—highly supercalendered and prepared first with wax bath—later treated with hot wax.
4. Waxed glassine—used widely in South and Southwest. Has been limited in its use in the past because it is not so strong and was difficult to keep pliable. Strength and flexibility have been greatly improved by treatment of fibre in the base stock.
5. Lacquer-coated glassine—is quite transparent and will be promoted after the war to compete with cellophane because of its lower price. May be used in the future on white bread to give package effect of a cellophane wrap. Said to be about two-thirds the price of cellophane.
6. Cellophane—used mostly unprinted with wrap-around paper labels and end seals for brand and product identification. Unprinted roll cellophane is more economical because it can be used for any purpose in the bakery, whereas printed cellophanes are limited to specific use for which they are made.

### Early bread wrappers

Until the second decade of this century most bread was sold directly by the local retail baker to the consumer. Wrapping was done behind the counter at the time of purchase. Usually the bread was wrapped with paper and tied with a string. Bread sold by wholesale bakers was usually sent unwrapped to retail outlets.

First automatic bread wrapping machine to use continuous roll feed was invented by a Frenchman named Seigné about 1914. This invention and the general consumer demand for pure foods as agitated by the early food and drug laws also speeded the use of packaging in the baking industry. The

consolidations that were taking place and the wider market areas of distribution that could be covered by automobile transportation also fostered rapid increase in wrapping of baked goods.

At first not so much attention was paid to design or appearance of the wrappers until the bakers learned there was merchandising value in the wrappers, that bread with an attractive wrapper often outsold one with a less attractive one.

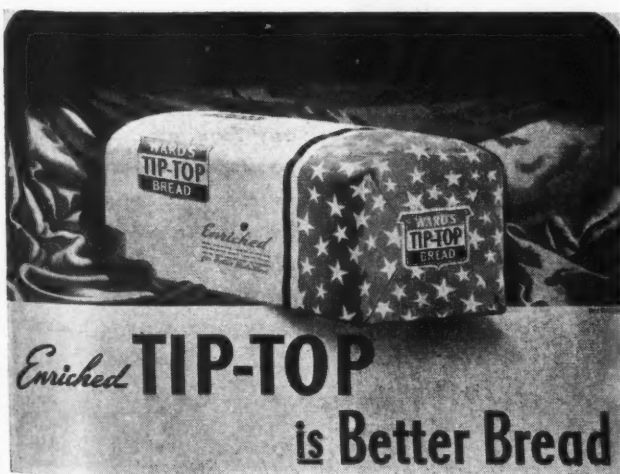
Mildred Lucas, one of the early group of bread-wrapper designers, can well remember those days when she worked for the late Emile Frisch of the old American Bread Wrapper Co. in Chicago. At that time (circa 1920) this company was selling wrappers to every outstanding baker in the country. Everybody was wanting something different to make his bread look better and to have a package that could be dramatized in his advertising.

Frisch thought bread should be given a wrapper that would set it off as handsomely as a jewel. He developed what was known throughout the trade as the Tiffany wrapper. He paid his artists unheard-of salaries of \$75.00 a week at a time when designers in similar fields were getting \$20.00 and \$30.00. This was long before the days of cellophane and the improved opaque wax sulphite wrapper. The transparency of the waxed sheet used in that day was such that it showed all the wrinkles in the wax and imperfections of the loaf.

Frisch put out wrappers that had the feminine appeal of a lacy allover design to conceal the imperfections. He had the idea that to sell white bread the package should be dramatized and he didn't want his artists to sit at their drawing boards and dream. He made them go out to visit stores, talk with bakery salesmen on the wagons and trucks so that when they came back they could design a bread wrapper that would tie in with what the people wanted. Even at that time the bakery industry knew the value of variety in products and some bakers were calling for as many as 25 different wrappers. As soon as a good number was put out by one company, bakers in other areas would see it and want something similar.

One of the designs that spread over the country was a Jumbo wrapper for the large loaves of bread, permitted in that day before government restricted the size of the loaves.

Naturally an illustration of the famed elephant Jumbo appeared on millions of these Jumbo loaves. Mildred Lucas was sent for a day to the Zoo to make sketches of elephants so that the illustration would be as realistic as possible.



Third dimensional effect of this broadside has been big factor in promoting Ward's Tip-Top bread package.



Evolution of Continental's Wonder Bread wrapper. Multi-color balloons were used as early as 1925. Girl figure above "W" was eliminated in 1931 (center) when sliced bread was introduced. Present package (bottom), redesigned in 1935, illustrates trend toward simplification. Balloons are smaller; word "Wonder" is eliminated from balloons; product name is repeated on both sides.

Next came the Pullman wrapper for a long loaf of sandwich bread. For this she remembers spending a day in the train yards and in a roundhouse to make sketches of the Pullman trains that were to illustrate these wrappers.

Usually the wrapper design was presented flat to the customer. This, said Frisch, was no way to show it to the bakers since it gave no idea of how it would look around the loaf. He had the first wooden dummies made to show a bread wrapper design. They weighed about 10 lbs. each and he had 50 made. He realized quickly if dummies were used they would have to be light in weight and he devised the boxboard dummy of a loaf of bread which is still used for package design presentation. He realized back in his day the importance of attracting the woman's eye in a flash. He realized that he must appeal to her vanity, that a loaf of bread

should be made to look interesting to every woman shopper whether she lived on Main Street or Park Avenue.

Many of the principles of design developed under the guidance of Mr. Frisch are of equal importance in bread packaging today and his widow, Lillian Frisch, is carrying them to fulfillment for the paper companies she now represents in the bread wrapper field.

### Package economics

Many of these principles of design for opaque wrappers have been lost sight of in the scramble for visible packaging since the introduction of cellophane. Transparent packaging fits into the basic requirements of the baking industry, but, according to the producers of cellophane, it has not always been used to its best advantage. Too often its use has been considered competitive or defensive, and its true merchandising value has been obscured by cost factors.

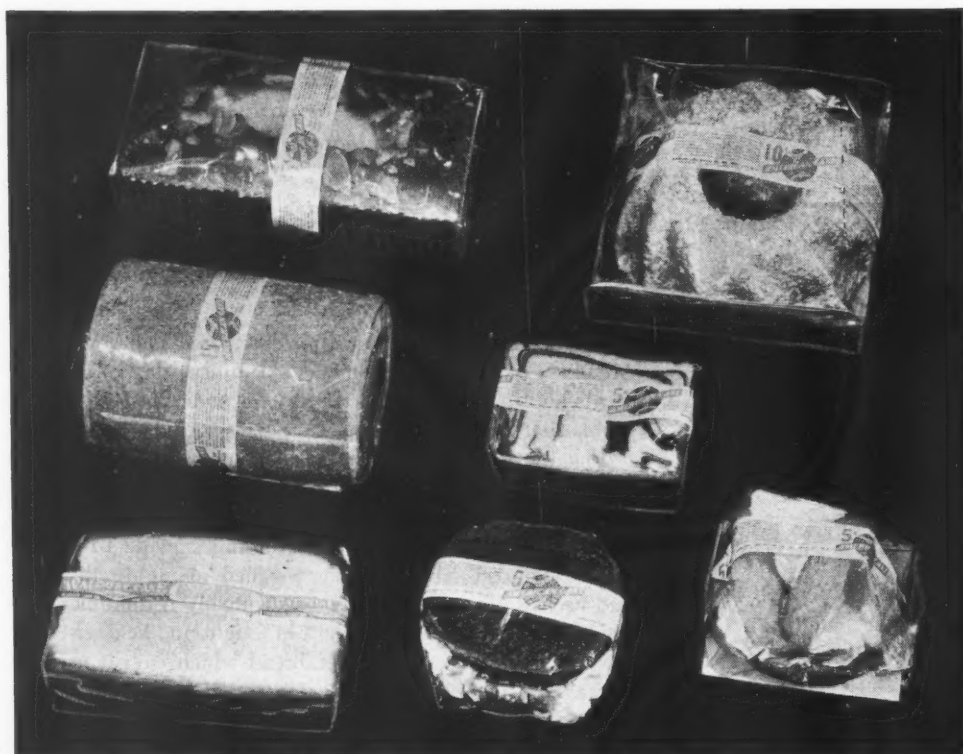
Cost accounting, they say, in its true sense is merely a system of measurement. This system yields data for analysis and guidance. The value of cost accounting to the baker depends largely upon the analysis and the judgment used in making a decision based upon it. Many costs which on the surface may seem high (cellophane is usually considered 20% higher than wrappers of other materials) are definitely interrelated to other costs and to profits in such a way that their reduction might result in a loss rather than profit. Studies are pointed out to show how closely many costs are tied together. Trucking costs, for instance, can be directly affected by a package which creates as little as one-half a loaf average increase in sales per store among the stores covered by a wholesale bakery salesman.

Proponents of transparent packaging discuss surveys showing that \$33.11 per week was the average cost of running a truck previous to the war. An average of 65 stores per day was covered by one truck. At nine loaves per store that was 585 loaves or 3,510 loaves per week. Thus the trucking cost of 1,000 loaves was \$9.45. If each store took nine and one-half loaves this would be 617 loaves per day, or 3,705 loaves

per week, with the cost of \$8.95 per 1,000 loaves. Thus any influence which would increase sales only one-half loaf per store was worth 50 cents per 1,000 loaves.

Actually costs are relative. Any cost whether it be high or low must be justified by its contribution to profit. In a practical sense a baker cannot tell what his profit for a day's operation is until his last truck is in and he knows what he has sold and what his percentage of stale returns is. Consignment selling has been prohibited by the government since the beginning of the war. If consignment selling is resumed with its high percentage of stale returns it will put more responsibility than ever on distribution. Losses from stale returns have been recorded in some cases as high as 30%, although 5% to 10% is considered average. Where packaging can lower distribution costs it will play an important part. Cost per pound of wrapping material, according to those who would justify the higher costs of cellophane, cannot therefore be the only basis upon which it is purchased by the average baker.

It is also pointed out that if the impulse sales value of a package can help to reduce stales, additional costs for such packaging may well be offset by such gains. For example, a sale at 8 cents per loaf instead of the loss of this sale due to the loaf becoming stale and being sold for 2.4 cents (stale recovery is usually around 30% of value) means the differ-



Left and above: Use of unprinted cellophane cut to any requirements for bakery packaging is greatly aided by the application of bands to give trade and product identity. Bands shown are applied as part of the wrapping operation.

Bread may be stacked in racks in almost any fashion. For that reason it is important that wrapper design be effective no matter which way the loaves are placed on the shelves.



ence of 5.6 cents the baker would receive for the product if the bread moved off the shelves fresh and a loss of 5.6 cents if he had to take the product back as a stale and sell it for 2.4 cents.

If stales are reduced from the figure of around 10% (which many sources claim was average with consignment selling previous to the war) to only 5% it represents a saving of \$2.80 per 1,000 loaves since each 1% reduction or 10 loaves means a saving of \$.56.

#### Will cellophane prices go down?

The manufacturers of transparent films and converters will not commit themselves on what the prices of such materials will be after the war, when their supplies are again in competition with others for the baking industry. Facilities for the production of cellophane have been greatly expanded for military needs, but one spokesman for the cellophane industry said that even such expansion could not cover the demands of the baking industry, if every baker wrapped his white bread in cellophane. Furthermore, this spokesman was not sure the cellophane producers would want to put all their eggs in one basket even if the bakers demanded all the cellophane they could produce. The cellophane companies would rather diversify their markets as they have in the past. They also expect a large demand for cellophane from the frozen food industry after the war.

#### Other transparent materials

Competition from other types of transparent materials might eventually have an effect on the price of cellophane, although this situation is not likely to happen in the immediate future. There are rumors that new types of transparent films may compete price-wise, but so far no other completely transparent material that is likely to be lower in cost than cellophane has been made in sufficient quantities. Furthermore, some transparent films are not suitable for bakery wrappings. Recent tests showed that cellulose acetate, for example, was too permeable to moisture vapor for this purpose until proper coatings can be developed.

To meet cellophane competition in the baking field, the makers of lacquer-coated glassine will promote this material,



*Suggested transparent package for merchandising two kinds of sliced bread in one eye-catching unit.*

which they consider the most nearly transparent paper next to cellophane. Lacquer-coated glassine has tested to within 80% to 85% the clarity of cellophane on a transparency meter, it is claimed. This material will be greatly improved in strength and flexibility. New resinous thermoplastic coatings will give the sheet a high gloss. Since the war, development for civilian markets has been curtailed because of inability to obtain the resinous compounds used for the coatings—perhaps also an answer to the question why the baking industry hasn't heard much about any lacquer-coated bread wrapper stocks since the beginning of the war.

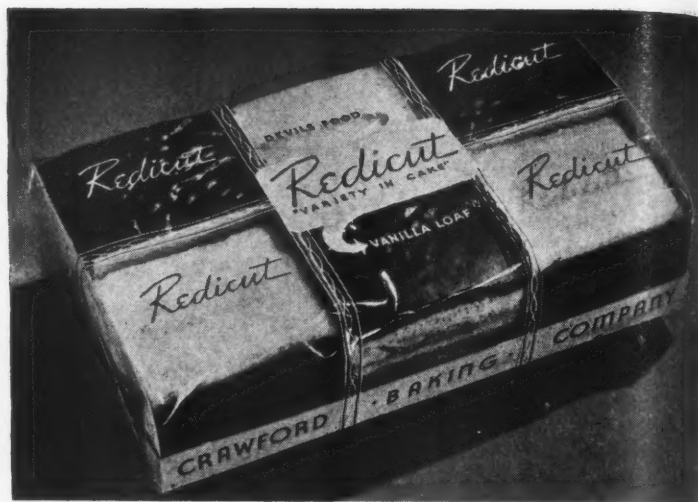
Cellophane and waxed paper combination wrappers, used widely during the war period to save cellophane tonnage, will also give visibility to many bakery packages.

#### Foil possibilities

There has been much talk about postwar possibilities of aluminum foil for bread wrappers, but the aluminum com-



*Stripes inside carton give attractive appearance to this fully visible package for square coffee cake.*



*A printed cellophane package for these cake squares offers the consumer two varieties in the same purchase.*

panies are very close lipped about this development at the present time. It may be only because of the tightening of aluminum sheet or it may be because the moistureproof properties of foil are too good for wrappings on bread and other baked goods other than box liners for such items as fruit cakes.

Bread, cakes and sweet goods must be in packages that breathe. A loaf of bread when baked contains about 38% moisture. Immediately this moisture begins to evaporate and continues to evaporate as long as the loaf survives. For that reason a bread or baked goods package must allow for a certain rate of moisture-vapor transmission. If the moisture is not permitted to escape through the package, the bread may mold faster and lose its freshness. If moisture-vapor transmission is not at the correct rate through a transparent wrapper, it can cause unsightliness by condensation on the inside of the wrapper.

Moisture-vapor transmission rates of baked goods packaging materials are studied carefully by laboratories of both suppliers of packaging materials and bakers. Specifications for such transmission rates are changed for summer months when relative humidity is high and evaporation slow, or for packaging supplies purchased for use on baked goods sold in humid or damp climates. Doughnuts, for example, in cellophane window cartons were once troublesome in New England summer climates, until the moisture-vapor transmission rate of the cellophane window was changed to eliminate condensation of moisture on the inside of the window or to prevent the sugar from becoming sticky on the doughnut. The latter problem may be controlled to some extent by the correct formula for the sugar.

Since baked goods packages must breathe, the use of foil for this purpose must be studied carefully, because foil is inherently moistureproof. Experiments with perforated foil have been made. Also cellophane windows have been tried in combination with foil wraps, but to date no complete findings have been reported on such developments.

Foil was actually used as a commercial bread wrap as long ago as 1924. It was introduced on a 35-cent loaf called Wallace's reducing bread, a promotion that tied in with Wallace reducing records, a series of setting-up exercises you could do to phonograph music. Independent bakers were licensed to bake this bread and it made capital of a current reducing fad—one that crops up to plague the baking in-

dustry once about every seven years or every time women have time to think about their figures. This bread was nothing more than high-quality whole wheat bread loaded with agar, which helped fill you up so you wouldn't overeat. This bread was wrapped in a foil wrapper for eye appeal. It was discovered that the bread molded very quickly in foil and eventually the foil was discontinued but the bread was sold successfully for quite some time longer in waxed paper wrappers.

Foil may yet be successfully developed for bread wrappers. Those on the first bandwagon may win a merchandising advantage for specialty items until the novelty wears off. This advantage is always lost when too many people use the same thing at the same time. In the decorative field, as a box covering or lining, or in specialty gift lines, foil should have many applications in the baking field.

Many of the bakery consolidations and independents concentrated quite intensively on gift lines before the war and will be expanding this kind of business after the war. Several have asked for novel re-use containers for packing fruit cake and are looking for such items made of glass, metal and plastic. They are particularly interested in containers for this purpose made of plastics.

### **Spraying baked goods**

Most revolutionary idea in bakery packaging is the suggested possibility of a transparent wax spray which would completely protect a loaf of bread without any other wrapping.

Some believe such coatings could be stripped off in the same way you peel a banana or similarly to the plastic coatings that strip off used for the protection of metal parts for overseas shipments—only of very different materials, of course. Some bakers have even mentioned the possibility of an edible protective coating for bread that would not have to be torn off. Such coatings have been applied to fruit. How practical they would be in the bakery field is anybody's guess.

Another sensational possibility for bakery wraps may be a future film made of glass.

### **Protective improvements**

Greatest improvements in bakery packaging will be those you can't see—improved greaseproofness of the sheets, more accurately controlled moisture-vapor transmission rates

better adhesive and sealing qualities, more flexibility and less brittleness, better folding endurance.

A development the paper industry is working on is the treatment of wrappers, boxes and bags with agents for retarding the growth of mold. For some time, bakers have used agents mixed in the batches for this purpose with partial success, but the bread wrapper manufacturers and converters believe that treatment of the packaging materials, themselves, will eventually solve this problem of prolonging the freshness and tastiness of bread—even retaining the wonderful aroma of fresh bread just out of the oven.

Many laboratories are working with such agents but to date none has been completely successful. One promising experiment indicates a treatment of paper or cellophane with an agent which gives off a non-toxic vapor said to retard mold growth over a considerable period of time—a vapor which would actually penetrate the loaf so that mold would have little chance of getting started.

Also so talked of are volatile flavorings that can be incorporated in the wrappings to impart aromatic flavors.

### Improved equipment

Every baker is looking for improvements and refinements in packaging machinery. Since the war he has been able to obtain very little new equipment and is waiting to see what the future will bring. First of all, he is interested in high-speed machinery equipped with electric eye for more accurate spotting of bread wrapper designs on the package. Some bakers prefer this attachment on a side-feed machine, others on an end-feed type, but all are anxious for high-speed models.

They realize the progress in electric eye attachments is partially dependent upon the uniformity of the loaves they can bake. Due to lack of standardization in sizes of bread pans, formulae used, etc., no two bakers in the business can produce an absolutely uniform loaf. Progress is being made, however, in standardization of pan sizes and government regulations covering sizes of loaves, ingredients and weights are helping to achieve uniformity, which should be an aid to

the equipment manufacturer in devising the type of wrapping machines wanted in the future.

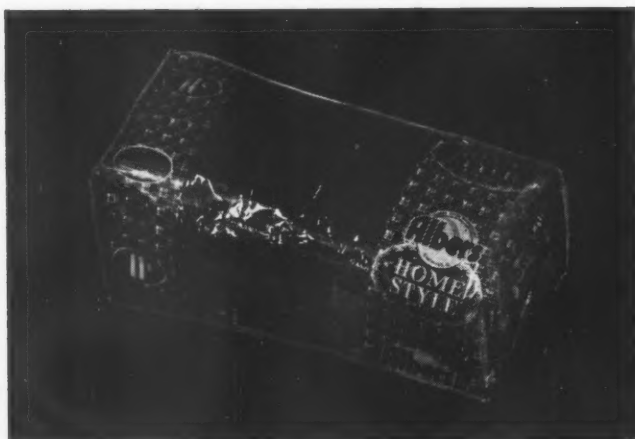
Accuracy of spotting labels is essential for producing what is called a bread wrapper with six-sided viewpoint. By that is meant a wrapper designed so that no matter how it is stacked on a rack or shelf, all sides and ends of the design are visible and easily recognizable. Because of the irregularity



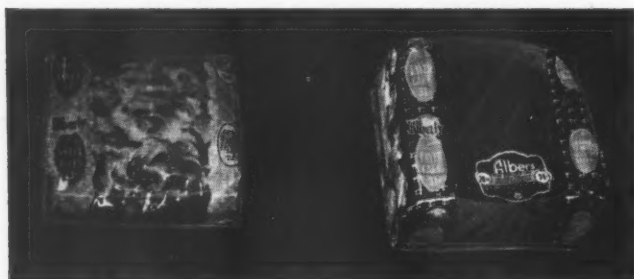
Thirteen different ways in which doughnuts may be packaged are illustrated in this varied collection.



Doughnut Corp. of America, however, estimates that approximately 80% of the packaged doughnuts are sold in standard type grease-proof cellophane window cartons of various sizes, such as are shown in this photo.



Combination cellophane and waxed paper wrapper gives visibility to product; at same time it saves cellophane.



Cakes and sweet goods also efficiently wrapped in packages combined of waxed paper and cellophane.



Dated wrappers to assure consumer a fresh loaf of bread have been tried successfully by the A & P bakeries.

of shape, bread is sometimes placed in the racks with the bottom of the label showing toward the shopper.\* In other racks only the end shows. Still other store operators place the bread sideways in the racks. Because of this variation in display practice, the modern baker should design his wrapper from the standpoint of making every side interesting. With the accurate spotting of labels by means of an electric eye, it is possible to use greater variety of design on each of the six panels, instead of repeating the same pattern as is now generally current procedure. For example, if a trade character is used to tie in with the advertising program, it would be feasible to have the character in different poses on the different panels, instead of repeating the same picture on all four sides.

Also needed is more automatic machinery for the handling of sweet goods, pies and cakes. The doughnut industry is particularly desirous of automatic packaging for doughnuts. Up to now this has been virtually a hand operation. In certain plants handling dozens daily, this operation is inefficient, costly and impractical. The same type of automatic packaging may effect the wrapping of other baked goods as well.

Pie packaging is also being studied. Cellophane held in place with a tight-fitting collar, which slips over the edge of pie and paper pie plate, makes an attractive visible package. It is troublesome, however, in protecting the high crown of pie crusts when pies are stacked. Case-Moody Pie Corp., Chicago, has recently installed a packaging process which inserts 8-in. pies into die-cut, folding window cartons automatically overwrapped with cellophane and labeled with price and ingredients. The new machine will turn out 4,100 pies an hour and equipped with labeling attachment can be adjusted for wrapping square and loaf cakes as well. At present, loading of pies in cartons is a hand operation, but mechanical means to set up cartons and insert pies are being studied.

End seals will be extremely prominent in postwar packaging, it is believed. Under present wartime packaging rulings, their uses are somewhat limited. Postwar, they will be adopted for merchandising purposes for which they have unlimited applications. Among these are coding, dating, promotion of contents, advertising of allied products and the like. Chain stores, packaging their own bread, will utilize end seals for a number of products in their lines. Certain private labels and other items which they wish to feature can be given merchandising emphasis at no extra cost through end seals.\*

Comparatively new, thermoplastic end seals have established themselves well in numerous markets of the country and have proved their effectiveness in reducing wrapping costs and in providing a better wrapped, more dependably wrapped package plus an extra merchandising push.

Costs in the baking industry as broken down by Quality Bakers of America give some idea of the relation of packaging to other costs.

Ingredients.....	44%
Shop labor and expenses (including 6% to 7% for package materials).....	22%
Administrative expense.....	6%
Selling and delivery.....	23%
Net profit before federal income tax.....	5%
Total.....	100%

#### Future of waxed papers

With 6 to 7 cents of his dollar the baker must get the very greatest possible merchandising value from his package. On white bread, this leaves precious little to buy cellophane for a transparent wrap, unless the (Continued on page 170)

\* "Progress in roll-type labels," MODERN PACKAGING, November, 43, p. 82.



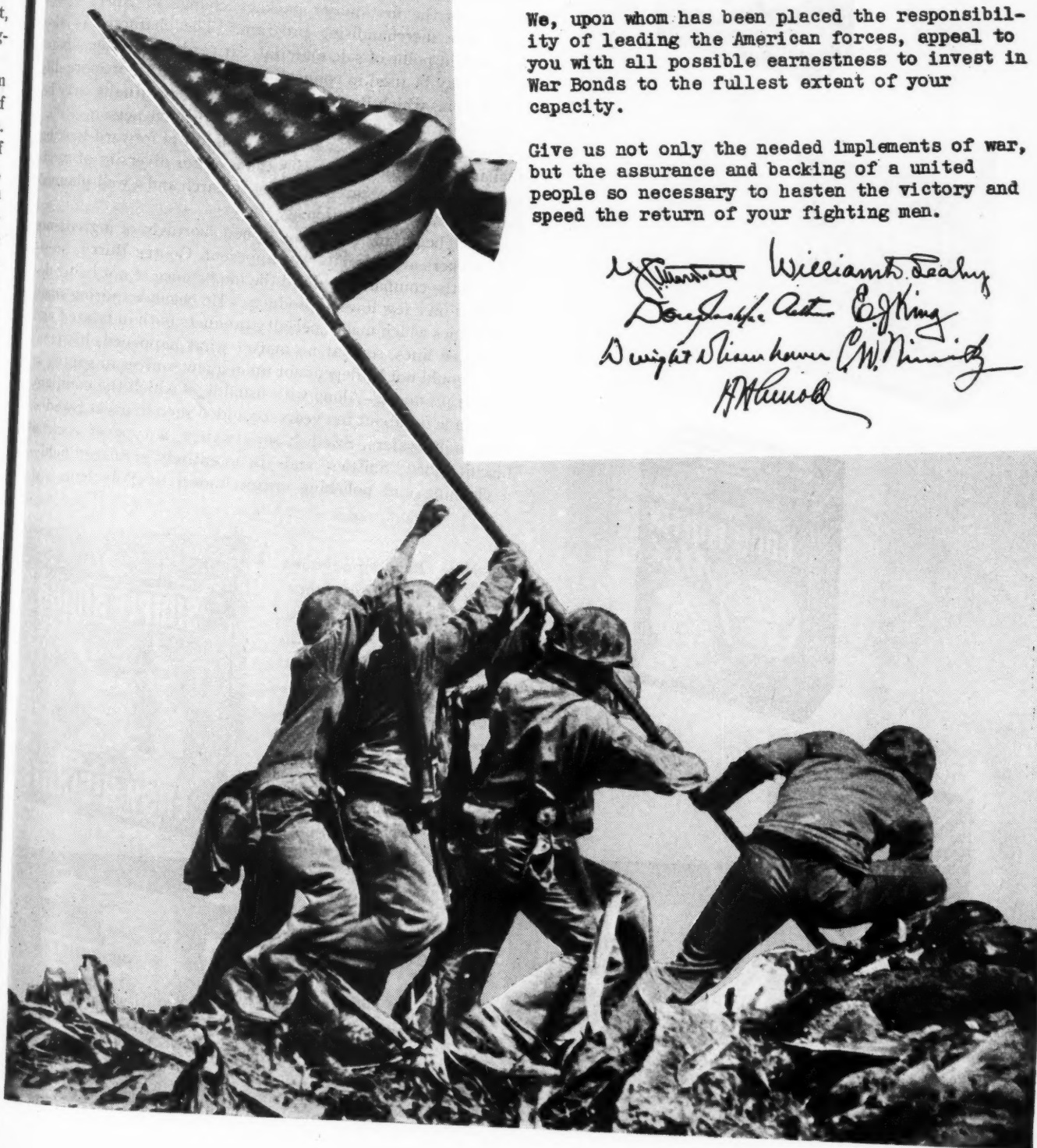
TO THE AMERICAN PEOPLE:

Your sons, husbands and brothers who are standing today upon the battlefronts are fighting for more than victory in war. They are fighting for a new world of freedom and peace.

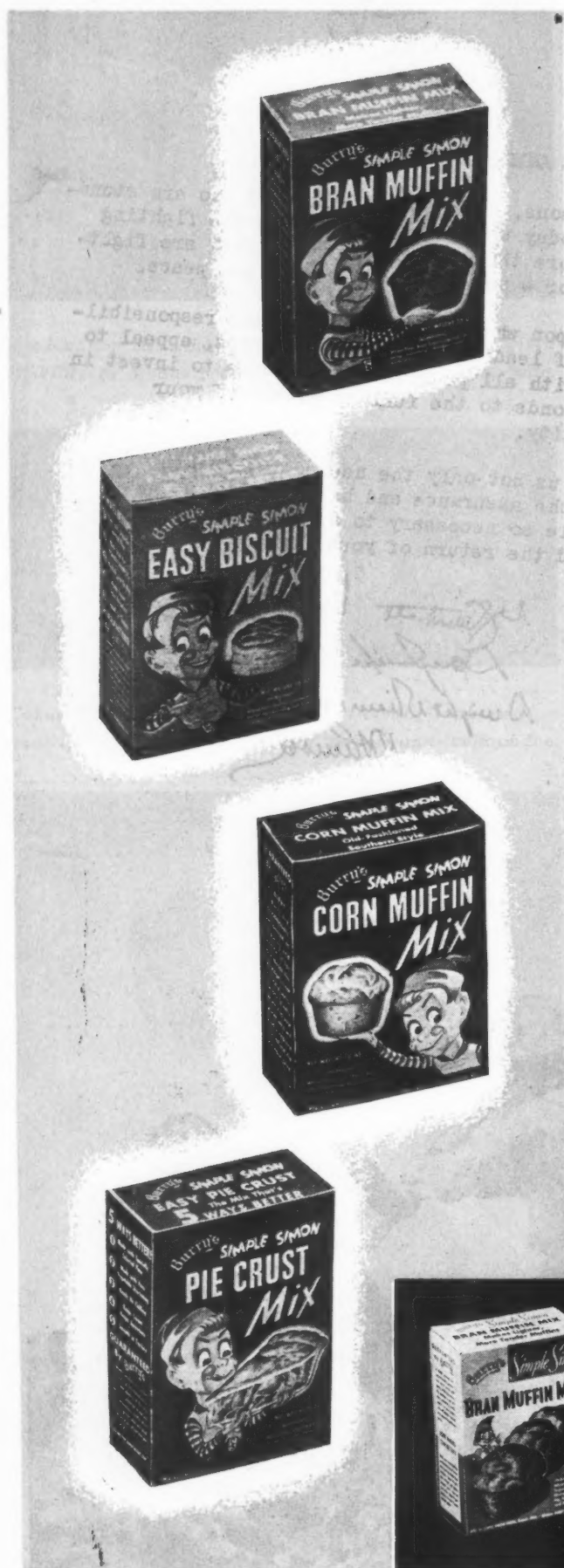
We, upon whom has been placed the responsibility of leading the American forces, appeal to you with all possible earnestness to invest in War Bonds to the fullest extent of your capacity.

Give us not only the needed implements of war, but the assurance and backing of a united people so necessary to hasten the victory and speed the return of your fighting men.

*W. Wendell Williams, Leahy  
Douglas, A. C. King  
Dwight D. Eisenhower, C. W. Nimitz  
H. H. Arnold*



# A star is born for Burry Biscuit



This is an age of youthful starlets and one to be reckoned with among coming American trade characters is the happy American boy who likes good food just introduced on the new packages for Burry Biscuit Co.'s Simple Simon prepared biscuit or pie crust and muffin mixes.

This happy-go-lucky fellow was acquired by Burry in its current expansion and diversification program with the purchase of Simple Simon Foods, Detroit, in 1943.

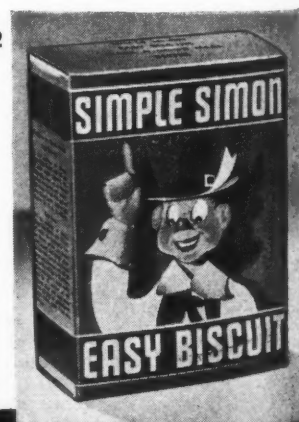
But no one would recognize the gay new character on the new packages from his stylized prototype.

The new trade character on four redesigned packages for bran muffin, corn muffin, easy biscuit and piecrust mixes represents the first major package change in Burry's new aggressive merchandising program. The character is also featured in point-of-sale material, car cards and other advertising, may be used in connection with the forty or more different items which Burry now makes—and eventually may be seen and heard around the country as a real live person.

Burry's program is an excellent example of forward-looking management which recognizes the need for diversity of products, backed up by careful market research and a well-planned national sales organization.

At the beginning of the war, when shortages of ingredients for crackers and biscuits was apparent, George Burry, president of the company, realized the importance of not being dependent on a few lines of products. He began acquiring small companies which made specialty products both in related and unrelated lines, so that no matter what happened, his company would not be dependent upon a few sources of supply or type of products. Along with usual lines which the company had made for about ten years, he added such items as Swedish style milk wafers, Swedish soya wafers, a type of cocktail biscuit called "Snifties" and—in an entirely unrelated field—a cleaning and polishing cream known as Polyclene. Af-

1—New Burry packages show the new trade character in various poses. 2—The original Simple Simon before Burry changed him. 3—Subsequent design, which did not feature trade character and looked too much like everybody else's packages.



ter the war, Mr. Burry also expects to add a new type of soluble coffee, made by a new process and soluble in cold water. Also included among his products are fruit cakes, cookies and the "Rum Soakies" in glass which were so popular during the last Christmas season because of the sales campaign that was put behind them last year, although this product had been on the market for several years previously. Because of the success of "Rum Soakies," a similar product, "Brandy Bingies,"—tiny bits of fruit cake soaked in brandy syrup—will be added to the line.

Along with his other acquisitions, Mr. Burry acquired a new advertising agency, Buchanan and Co., and with it Arthur W. Ramsdell, of Borden Co. fame, as account executive. Mr. Ramsdell's forte is market research and the whole reservoir of his skill was put at Burry's disposal. Result—complete revamping of Burry's sales organization—and an increase in the company's sales from \$5,000,000 to \$7,000,000 in a year.

The new biscuit and muffin mix packages illustrate how the company is attacking its new merchandising program.

Fig. 2 illustrates the original package. The boy character was there, but he did not have the animation or movement that Burry wanted. Fig. 3 shows a subsequent design—not a bad design from visibility or identity standpoint—bright yellow background with product and product name in poster type. But, said Burry, "These are just like everybody else's packages—yellow for high visibility so they won't be seen among all the other yellow packages." Furthermore, the trade character appeared as a tiny gnome behind the baked goods illustrations without proper emphasis.

When the redesign was made, the boy, Simple Simon, was given the biggest play on the front panel—ready for easy identification and tie-up with all kinds of point-of-sale, newspaper or magazine advertising. On each carton he is in a different pose, but always with an expression of gleeful anticipation of eating good food. Even though his poses are different on each of the different packages—and there will be five when a gingerbread mix is added—the arrangement is such that the name of the product, Burry, and Simple Simon appear in exactly the same position on each package.

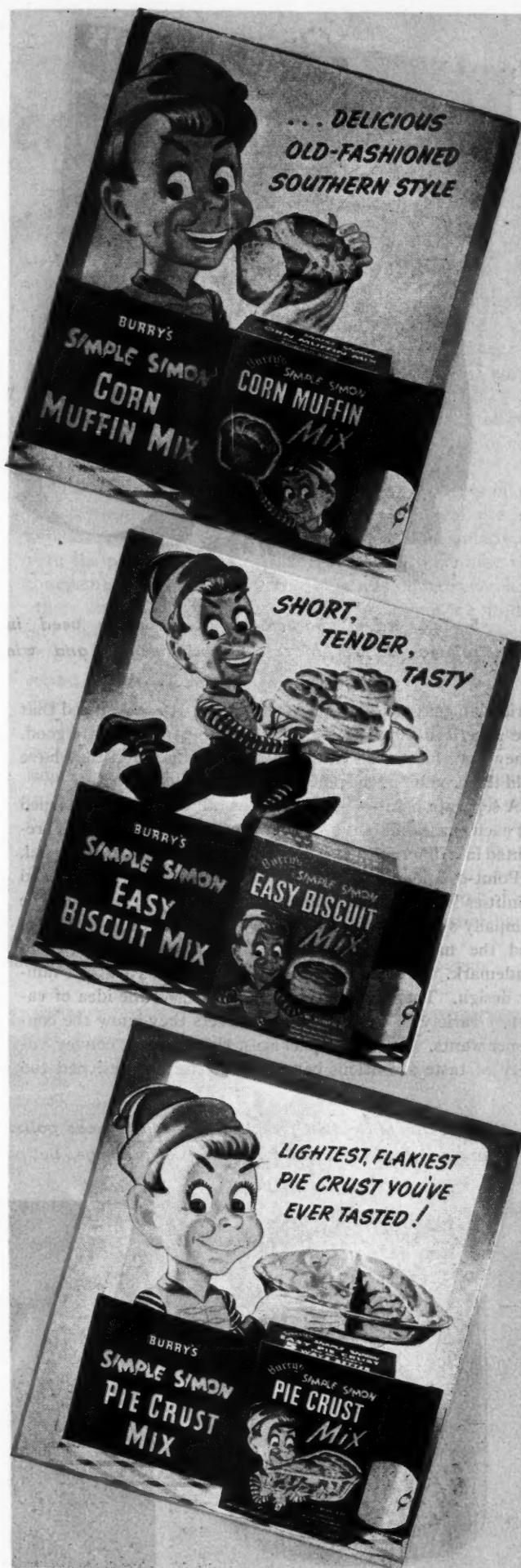
The company has not been afraid to minimize the use of yellow as a high visibility color. The theory is that other colors will stand out all the more prominently on store shelves, because of the predominance of yellow on competitors' products. Each package also is printed in a different background color for quick identification—the bran muffin carton is red; corn muffin, maroon; biscuit mix, light blue; piecrust mix, dark blue. The gingerbread carton will have a green background. Side panels are printed with sales and informative data, while the back panel, also in full color, is reserved for recipes and illustrations of the bakings.

Since the new packages have been introduced and distributed nationally, Burry says sales are showing exceedingly healthy growth.

This increase is not to be attributed entirely to the package, of course, but to the careful tie-up of package with sales planning, distribution and particularly the point-of-sale displays offered to help sell the goods.

It is the company's conviction that good point-of-sale ma-

4—Simple Simon as he is portrayed on the new point-of-sale material. Company hopes to make him synonymous with all the Burry products. Eventually he may be seen and heard as a real live person on the radio.





5—The trade character is also being used in point-of-sale material for Pretz-Stix. 6—Also for related Burry products. Good counter and window material gets good position, company says.

terial will get good position in the store. It is convinced that the American boy counter cards (see illustrations) are good. They have had excellent display in the stores and they have sold the product as the preceding sales results indicate.

A separate point-of-sale piece—in full color—was designed for each of the different types of mixes. In each the boy is presented in a different pose; in each he conveys appetite appeal.

Point-of-sale pieces for the company's "Pretz-Stix" and "Snifties" show how the same character is identified with the company's other products. The character, Simple Simon, and the name Burry will be the company's identifying trademark. Beyond that, Burry is not worried about family design. Their products are predicated on the idea of variety—variety in a line of food products they know the consumer wants. Attractive packages, they believe, convey variety of taste sensations better if they are not designed too

rigidly to a family pattern, so long as they are tied together with proper identifying marks—and the American boy who likes to eat, will do that.

Another indication of the company's unorthodox ideas in package design is a new label for year 'round fruit cake. Background is black with a diamond shaped spot of purple for trade and product name. The idea of year 'round is conveyed by corner decorations in full color—spring, fruit blossoms; summer, cherries; fall, autumn leaves; winter, fir branch covered with snow. Reverse side of the label which wraps around a corrugated carton has space for writing a mailing address.

There is no attempt to tie this package in with any other in the company's line. The colors are not what the books say have highest visibility, but put the package beside others and see how it stands out. Yet even the fruit cake can be tied in with the boy trade character in any advertising material.

7—In diversification program Burry introduces polishing cream in simply labeled jar. 8—Black and purple are unorthodox colors for fruit cake package, but put this package beside others and see how it stands out.



# Consumer acceptance... of tobacco packages



The paper or flexible package for pipe tobacco was originally regarded as a temporary substitute, pending the return of metal. Tobacco manufacturers have appeared to present it almost apologetically; there are few instances of any attempt, in advertising or labeling, to point out any advantages which the flexible package may have.

But, if consumer acceptance is to be taken as the guiding consideration, this thinking may have to be revised.

A sample survey recently completed indicates that a majority of smokers find little to choose between the paper and metal containers. To slightly more than 40% the paper package appears to offer definite advantages; 33.6% said they would take the paper pocket-size package by choice after the war, while to an additional 6.6% it was a toss-up.

The survey was conducted by a manufacturer of packaging material seeking to establish a basis for postwar plans. While the sample taken was small, comprising 280 interviews, it was carefully calculated to cover a typical cross-section of pipe smokers—geographically and by age and occupation. Non-pipe smokers were not included in the tabulation.

Significant questions asked were:

1. Do you purchase the pocket-size package, the 1/2-lb. package or the 1-lb. package (of pipe tobacco)?
2. Have you noticed any change in the package or packages you have been buying?
3. What type of package did your tobacco come in before the change?

1—45.2 % of the pipe smokers polled preferred the metal can for their postwar pocket package tobacco.

4. How well, *in general*, has the new container kept your tobacco as compared to the old?
5. Have you found it as easy to use as the old package?
6. Why would you say the new package is, or is not as easy to use?
7. If you were able to choose between the metal containers used before the war and this new type of container, which would you prefer?

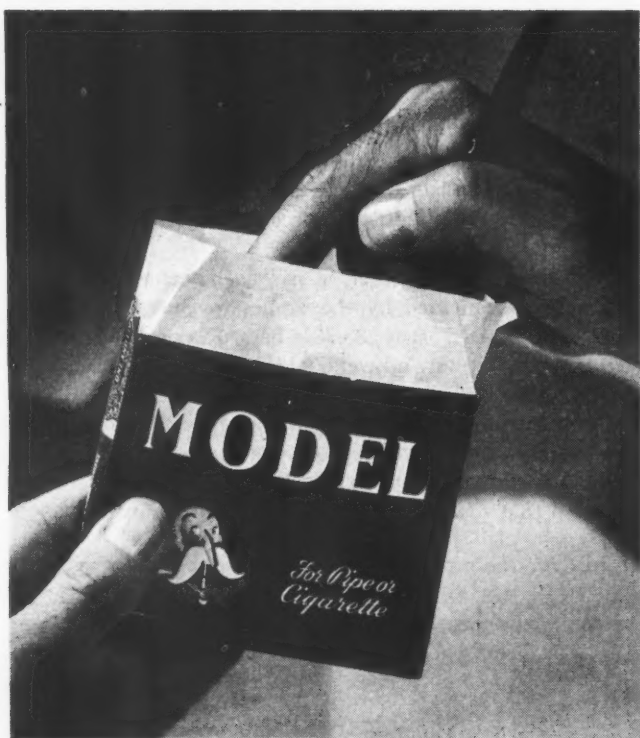
More than 80% of those interviewed were buyers of the pocket package; about 10% purchased the 1/2-lb. size and 24% the 1-lb. size. As indicated, some smokers regularly use both the pocket and bulk size. The majority of those who commented on the pocket size said it was more convenient; others said it was "large enough for a light smoker's needs," and that the tobacco was fresher because used more quickly. It was indicated that the bulk packages are bought or received principally as gifts, or because they are cheaper or more convenient.

That smokers are definitely conscious of changes in tobacco packaging is indicated by the replies to Question 2. The tabulation showed that 85.7% had observed a change; furthermore, virtually all were able to tell just what changes had been made.

The replies indicated that 88.3% of pipe tobacco brands are now in paper or cardboard packages; a change to a plio-film pouch was noted by 1.6%. As to the bulk sizes, it was indicated that most of these are also in cardboard or paper,

CANS COURTESY CONTINENTAL CAN CO.





2—33.6% said they would take the paper package by choice after the war; another 6.6% had no preference. 3—This tobacco was successful in a paper package long before the war; only substitution has been paper for foil inner pouch, glassine for cellophane. Many of those smokers who preferred a paper package mentioned the convenience of dipping pipe in to fill it. 4—Pocket pouches, using special protective papers or films, have proved popular and represent what is said to be a growing trend.

although a number of the 1-lb. size are now packed in glass.

On the other hand, previous to the change 85% of all pocket packages were metal; 5.2% were tin foil; 3.2% were paper and foil; 2.3% were metal and foil, and only 2.4% were paper or cardboard. An additional 1.4% were classified as pouch with tin foil or cardboard with tin foil. Thus, it would appear that metal in rigid or foil form figured in 97.6% of all prewar tobacco packaging.

Prewar bulk sizes were principally in metal, with glass running second. Only one smoker received his bulk tobacco, a 1-lb. size, in cardboard before the war.

In answer to Question 4, a total of 57.7% said the new container (i.e., paper or other non-metallic) kept their tobacco in condition about the same or better than the old package. The new package, said 2.5%, kept the tobacco better. A large percentage, 69.9, said the new package was as easy or easier to use.

Thus, assuming that these two considerations—keeping qualities and convenience of use—are all-important to the consumer, it could be inferred that to a majority of pipe smokers it makes no difference whether their tobaccos continue in war packages or revert to prewar dress.

However, this is a rather broad conclusion, and it should be noted that 42.3% said the new container's keeping qualities were not as good as the old, and 30.1% stated that the new package was not as easy to use. These percentages of objectors were slightly, but not significantly, higher when broken down to the users of pocket-size packages only: 43.4% of these said the new container didn't protect as well, and 32.2% said it was not as easy to use.

The interviewers noted also that the smokers who preferred the prewar metal container were much more vocal in their comments. The most frequent criticism (as applied to

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the pocket size) was that the paper package wears and spills (35.1%). Another 28.9% said that in the paper package the tobacco dries out. Other comments: "Must transfer tobacco to another container" (11.1%); "Harder to fill pipe from non-metallic container" (7.6%); "Tobacco gets moist and stale" (3.5%); "Paper absorbs perspiration and dampness" (4.1%); "Tobacco loses flavor" (2.6%).

Those who liked the paper package better, on the other hand, had some concrete reasons for their choice. Among these smokers, the principal comment was that the paper pouch was easier to handle. Others said it doesn't wear out the pockets like metal, it is easier to dispose of, it is less bulky, and you can put your pipe right in to fill it.

One misleading factor in all such wartime polls is indicated in the comment of 2% that they liked the paper container better because: "Anything to help the war effort."

On the final payoff question as to which package—paper, metal or glass—they would prefer after the war, 33.6% of the pocket package users favored paper, 45.2% liked metal and none wanted glass. For the 1/2-lb. size, metal and glass were an even choice, with paper a close second. There was a slight preference for metal over glass for the 1-lb. size, and very little consideration of paper.

It is interesting to speculate as to whether or not some of the specific objections voiced against non-metal containers could be eliminated postwar when the packager may have free access to all of the protective foils, films, coatings and laminations which are at present largely restricted to the war uses. Would it be possible, with costs in line, to build a paper pocket package that won't wear and spill, that will keep the tobacco fresh and in full flavor? If so, then the specific advantages cited for paper packages (ease of filling the pipe, won't wear out the pockets, less bulky, easier to dispose of, etc.) would come into operation, and the survey conclusions might be radically altered.

The 280 interviews tabulated were made by a trained research staff in cities and towns in Massachusetts, Illinois, Georgia, Indiana, Texas and New York. Of the smokers interviewed, 6.1% were under 20; 13.9% were between 20 and 29; 21% between 30 and 39; 25% between 40 and 49 and 34%, 50 and over.

Occupational distribution was as follows:

Professional and semi-professional workers.....	14.3%
Farmers and farm managers.....	2.1%
Proprietors and business executives.....	18.2%
Clerical, sales and kindred workers.....	17.9%
Craftsmen, foremen and skilled workers.....	7.1%
Semi-skilled workers.....	10.0%
Domestic service workers.....	1.4%
Protective service workers.....	6.8%
Other service workers.....	4.3%
Unskilled laborers.....	2.9%
Defense workers.....	2.1%
Not gainfully employed or unclassified.....	12.9%

While the survey seems to give a rather reliable picture of consumer preferences, it should not be assumed that these will or should be followed by the tobacco manufacturers. All other things being equal, the consumer preference will, of course, generally prevail. But factors of cost and speed of handling must be taken into consideration. Many manufacturers of pipe tobacco have large investments in machinery designed to fill metal containers and the handling of paper packages on this machinery has sometimes proved slow and costly. The cost of the paper material itself, incorporating necessary protective features for a normal competitive market, also must be balanced against that of the metal can.



One of the newest of the paper pipe tobacco packages, recently introduced by the Christian Peper Tobacco Co. for its Crosby Square brand, incorporates some unusual protective principles.

The interior wrapping is a laminated sheet made of two plies of waxed sulphite paper. This was felt to be the best sheet presently available from the standpoint of moisture-vapor protection and far superior to any sheet used for the purpose before the war.

A cardboard shell, for rigidity, is placed around the inner wrapping, and this in turn is wrapped and sealed in an aluminum foil which is heavily backed with a heat-sealing compound. A special machine, designed and built in the Christian Peper shops and believed to be the only one of its kind in the tobacco industry, seals the foil firmly at all edges—bottom, top and sides. The final outside wrapping is clay-coated paper.

The result is a completely sealed package—the goal of Christian Peper research started several years before the war.

Tests conducted in the company's laboratory indicate that shelf life of the tobacco is increased several times over. From the standpoint of moisture retention, the company believes the new package to be far superior to the prewar metal can, which was, of course, not airtight. When the foil is properly sealed, this is, in effect, a hermetically sealed package.

The new package has been market-tested by Christian Peper for about eight months, and is said to have fulfilled all expectations. It is intended as a permanent package. Although it is possible that improvements in some of the paper materials will be made after the war, the principles will remain the same.

CREDITS: Laminated sheets, Marathon Corp., Menasha, Wis. Foil, Reynolds Metals Co., Richmond, Va.



## A box with a bubble

Twenty-five individually bagged bubble bath sachets are packed in this set-up box with the unusual bomber-nose-like bubble of rigid drawn transparent acetate set into the cover.

The transparent bubble slightly magnifies the drawing of a girl swathed in bubbles which appears on the descriptive insert directly under the cover. The set-up box is enclosed in a folding carton for extra protection. In order to keep the bubble from being dented in stacking, a paperboard guard is slipped over it before the box is inserted in the carton.

Robert H. Clark Co., Beverly Hills, Calif., makers of the product, have been promoting these boxes as gift items. In fact, specially designed wrap-arounds are added for special seasonal promotions. The box shown in the center of the illustration is decorated with the wrap-around which was used for this past Easter promotion.

A trial-size packet of five glassine envelopes tied with ribbon is also offered for the consumer who wishes to try each of the various scents while the bubble box is reproduced in a junior size containing 12 envelopes and selling for one-half the price of the deluxe gift box.

CREDITS: Sleeve design, Charles Cruze, Los Angeles; folding carton, Standard Paper Box Corp., Los Angeles.

## Design Histories

### "X-ray" sheaths

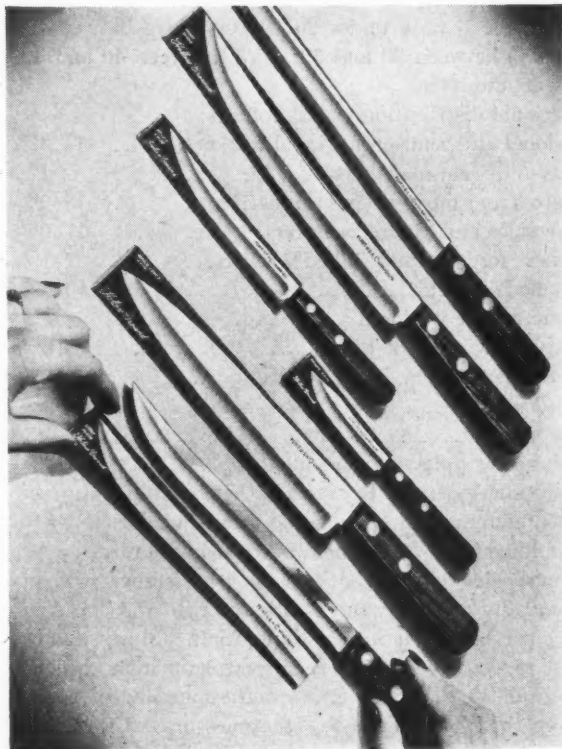
The consumer, looking for the right type of kitchen knife for the right job, now has her fingers protected while she examines the different styles. Ecko Products Co., Chicago, has devised an "X-ray" sheath of paperboard for its Flint Hollow Cutlery which protects both the edge of the blade and the customer's fingers and, at the same time, takes up no extra space in a package.

The sheath slips over the blade of the knife, extending about a half inch beyond the tip, and is distinguished by a facsimile of the blade it covers. On rich burgundy, selected as a background for the reproduction, is printed the functional name of the knife. On the reverse side of the sheath is condensed copy on "How to Keep This Knife Sharp and Beautiful."

Dealers believe that this new functional packaging enables them to offer more to their customers. They are able to keep their stock cleaner, in better order and free from damage to the finely ground edges. In addition, the sheath attracts the customer and she usually wants to examine the knives more closely.

The tight fitting sheath also is a boon to the manufacturer as it saves space in the outer box and the knives can be packed closer without extra protection.

CREDIT: F. M. Howell & Co., Elmira, N. Y.



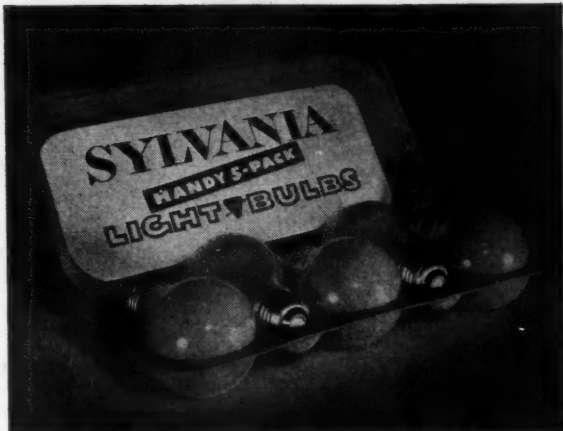
## Light bulbs in nests

Capitalizing on the housewife's custom of buying eggs in shock-proof molded pulp cartons, Sylvania Electric Products, Inc., is now pretesting its "handy-5-pack" of electric light bulbs packaged in the same way for post-war use. The five bulbs are placed each in its own nest and the hinged lid is closed over the compact package to hold each bulb in place and protect it from shocks or bumps.

With the new pack, sellers of light bulbs can look forward to a much higher unit of sale at no extra cost to them, either in money or in sales time. It trades the unit of sale up from one or two bulbs to five at a time. It encourages complete self-service and, lastly, it eliminates the need and cost of extra wrapping.

In addition to holding the bulbs safely and snugly, advantages for the consumer include convenience in carrying and in storing the light bulbs in the home. Equally important, the "handy-pack" will cost the consumer nothing extra.

If the test sales show that the container is successful and the design is offered to the public on a national basis, plans will probably call for both a factory-packed carton and a carton that could be filled from light-bulb bins by the buyer herself. This flexibility of merchandising will be an important feature of the device for the



retailer who intends to concentrate on self-service in his store.

So far, retailers who have seen the new package in its experimental form heartily approve and recent surveys of the light-bulb buying habits of 3,000 housewives suggest that they too will welcome the new convenience feature.

CREDIT: Carton, Keyes Fibre Co., Waterville, Maine.

## Design Histories



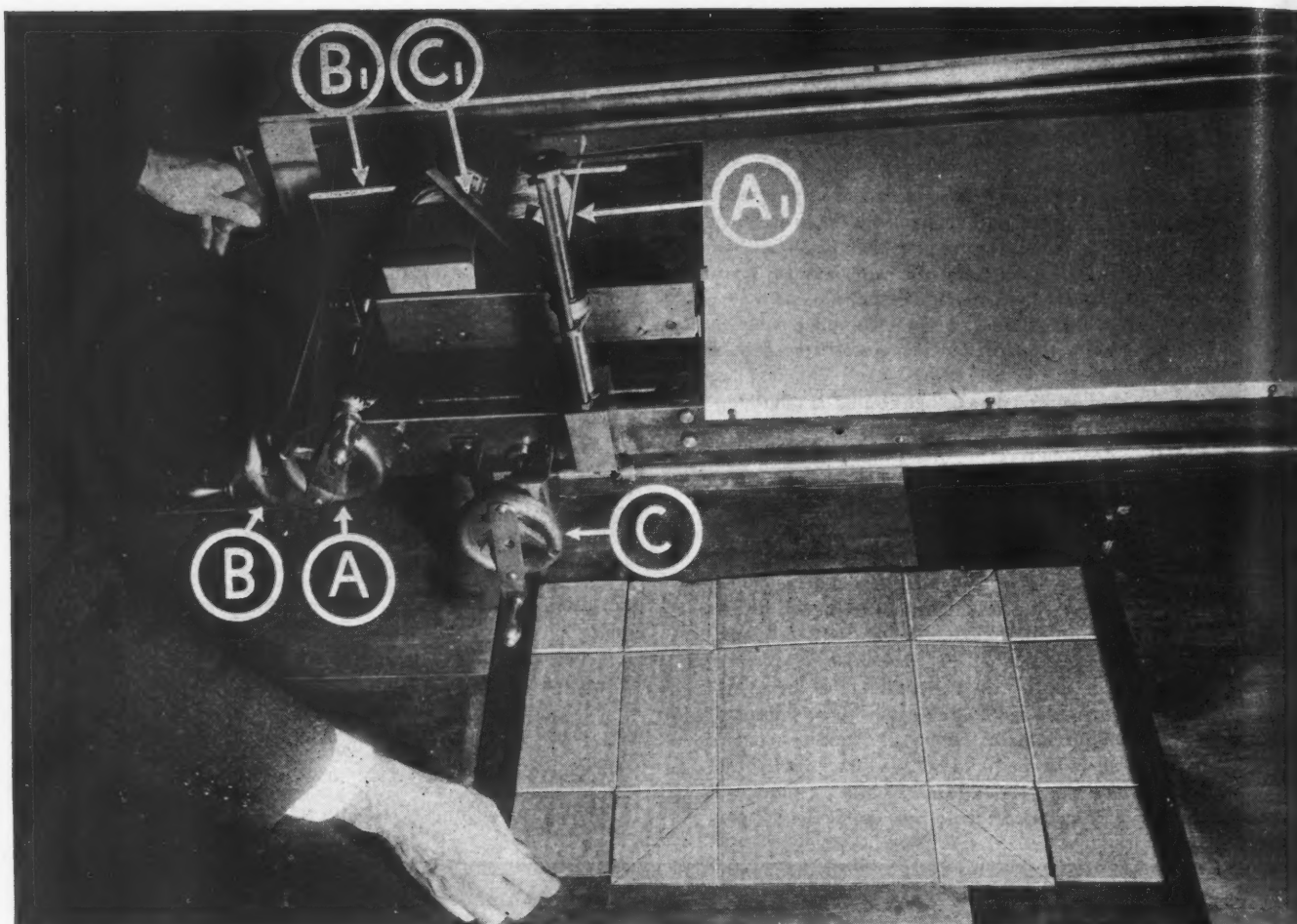
### Ceramics for men

Les Parfums Corot achieved such spectacular success with its line of women's perfumes in bottles decorated with ceramic flowers (MODERN PACKAGING, May 1944, p. 94) that it was decided to carry the same design idea over into its men's line.

Flowers for men, however, were considered too feminine. Several months of trial and error with various designs finally narrowed the choice down to three animal figures. Both retailers and customers have reacted favorably and the consensus of opinion seems to be that the figures are masculine enough to appeal to the man and yet dainty enough to attract the woman's eye when she is gift shopping. Because the bottles are stock molds the positioning of the ceramic became an important design factor. Each figure is put on by hand and it takes an artistic eye to place both label and figure in a position to achieve a pleasing effect.

Corot reports excellent sales on these items as gifts to men in service. Particularly popular is the "concentrated" after-shave lotion because one bottle is said to last ten times as long as the ordinary unconcentrated kind. Soldiers like this feature because one bottle is about all they have room for in their duffle bags.

CREDIT: Bottles and caps, Swindel Bros., Baltimore, Md.



1—Carton is desired to fit three items shown on stand. Hand wheel A sets gauge A<sub>1</sub> which determines length; wheel B sets B<sub>1</sub> for width, and wheel C sets C<sub>1</sub> for depth. Result is blank with scores and four slits.

## Cartons to size . . . made on the spot

Firms which package for shipment a wide variety of odd-sized items have always had the problem of fitting a shipping container without excessive waste of material.

Frequently waste cannot be avoided. Where it is impossible to anticipate the dimensions of each shipment, the only course has been to stock a wide range of factory-built cartons in standard sizes and rely on the packer to pick the size which will most nearly fit. If one dimension of the item being packed is a fraction beyond the capacity of the box picked, then the packer must go to the next larger standard size. Thus a single dimension of the item must govern, re-

gardless of the other dimensions. This frequently results in the waste of as much as 90% of the cubic content.

Because there has not appeared to be any practical way to get around it, this hit-and-miss system of packing has long been accepted with little question.

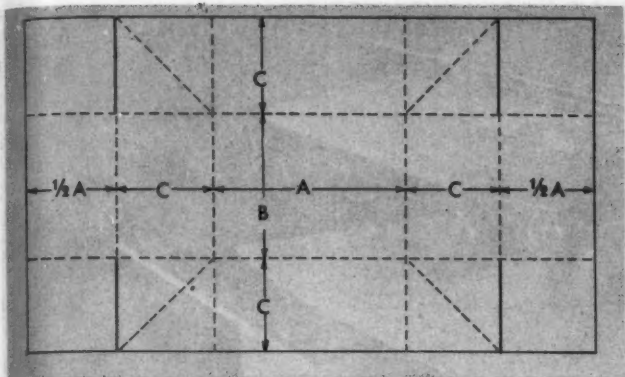
But several years ago an amateur inventor, a former executive of a company manufacturing office devices, set out to find a better answer. He set for himself the task of building a simple and inexpensive machine which would automatically compute the three dimensions of a shipment and turn out, on the spot, a corrugated carton of the exact size to fit it.

Such a machine has now been built and patented.\* A pilot model has been demonstrated to prospective users in various lines of business and a survey shows reaction to be quite favorable. Such criticisms as have been made are of a favorable nature, indicating a belief in the potential usefulness of the machine. Arrangements for postwar manufacture are to be made and a considerable market appears assured.

It is expected that the machine will be most useful to mail-order houses, department stores, jobbers and manufacturers whose products are not uniform in size. It will by no means replace the factory-built carton, for the great bulk of all

\* U. S. Patent No. 2,353,419, awarded July 11, 1944, to Eugene S. Smithson, 904 S. Center St., Ashland, Va.

*Once again, MODERN PACKAGING departs from its usual policy to present information on a development which has not yet reached the stage of commercial application. There is ample and, we feel, convincing evidence that this machine would now be in use were it not for wartime restrictions. There is a need for it. We would be remiss in our duties if we failed to tell you about it now.*



2



3

2—Diagram shows the scores and slits made by the machine. Dimensions A, B, and C are those determined by the gauges correspondingly lettered in photo at left. 3—Showing how the blank is formed into a carton.

manufactured and packaged products are, of course, shipped in fixed units and sizes for which it is most economical to obtain large quantities of cartons ready-made to set sizes.

It is intended that the machine be used directly in the shipping department, its operation being so simple that it can be handled by unskilled help. The present pilot model, which is illustrated, requires hand and foot operations, but in actual production it is expected that all of these operations will be electrically motivated and almost fully automatic.

As presently set up, the machine forms corrugated board into a one-piece, tuck-in-flap box, which requires only a single small strip of tape over the center of the top surface to close it securely. This box, which forms an exceptionally sturdy

mailing or shipping container, can be made on the present machine in any size up to 30 by 30 by 16 in., and larger sizes would simply require a larger machine.

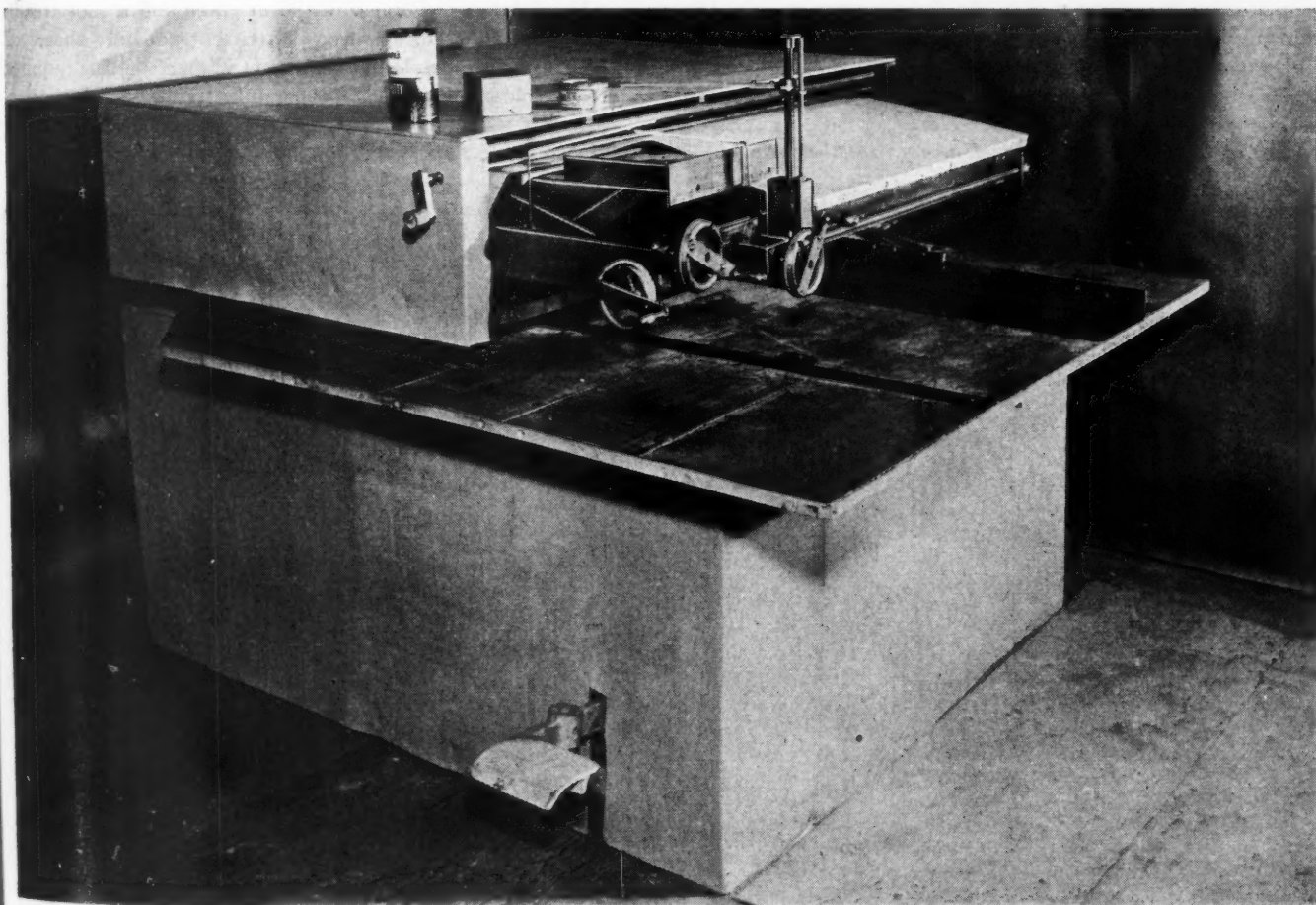
A machine to produce the regular slotted carton design would be even simpler in construction than the one described, according to the inventor. The diagonal creases would be eliminated. If this style were preferred, the user could so specify and the "head" to produce it could be installed. Stripping slotting knives is no problem, the inventor says.

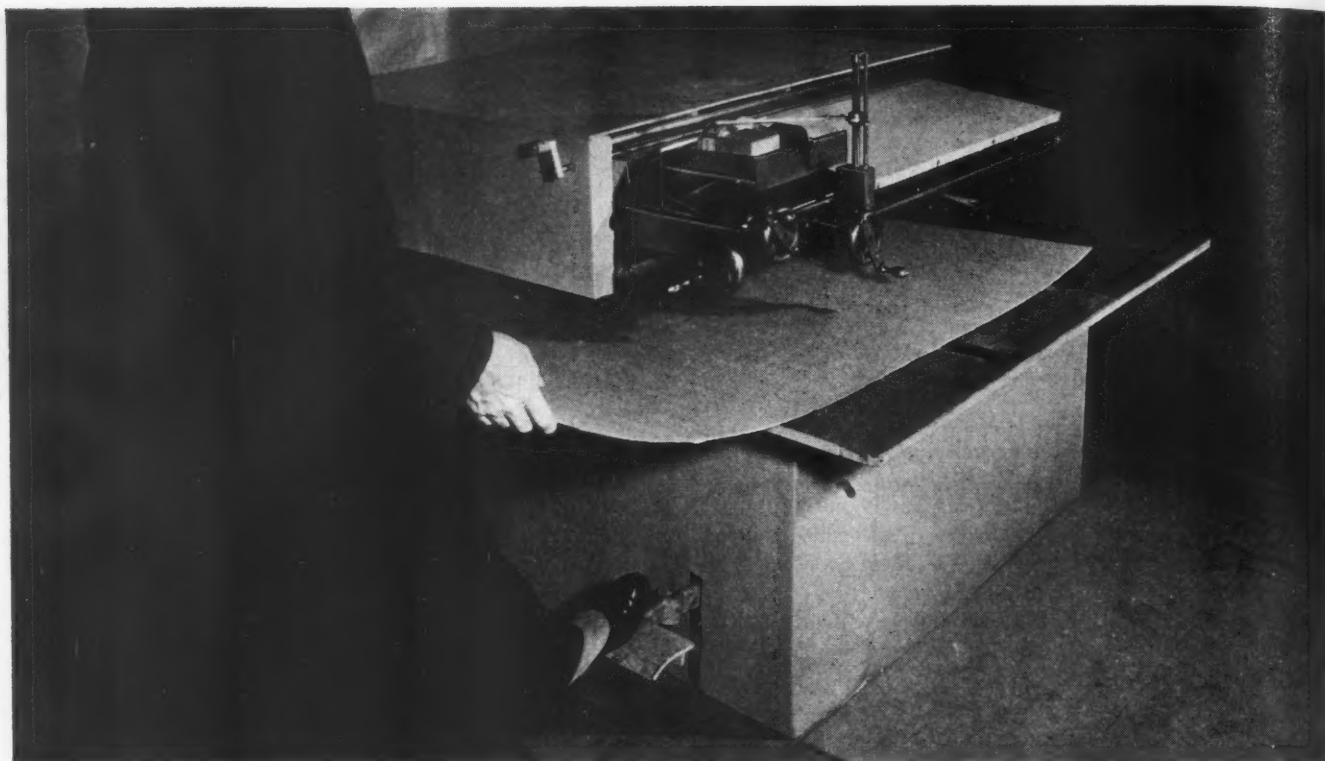
The heart of the machine is the deceptively simple device which measures the three dimensions of the item or items to be packed and sets the controls accordingly.

The shipment is arranged on a package stand at the front

4—Over-all view of machine prior to start of operation. Three items to be boxed are shown on top of machine.

4





5

5—With items in place, gauges set, sheet of corrugated is inserted to determine stops and foot pedal pressed.

of the machine exactly as it is to be placed in the carton. The three metal fingers of the size gauge are then swung into place, contacting, respectively, the top, open side and open end of the shipment. Where stuffing is required for fragile articles, the operator can allow the desired extra space. The dimensioning fingers are moved by turning small hand wheels; it is expected that they will later be mechanized.

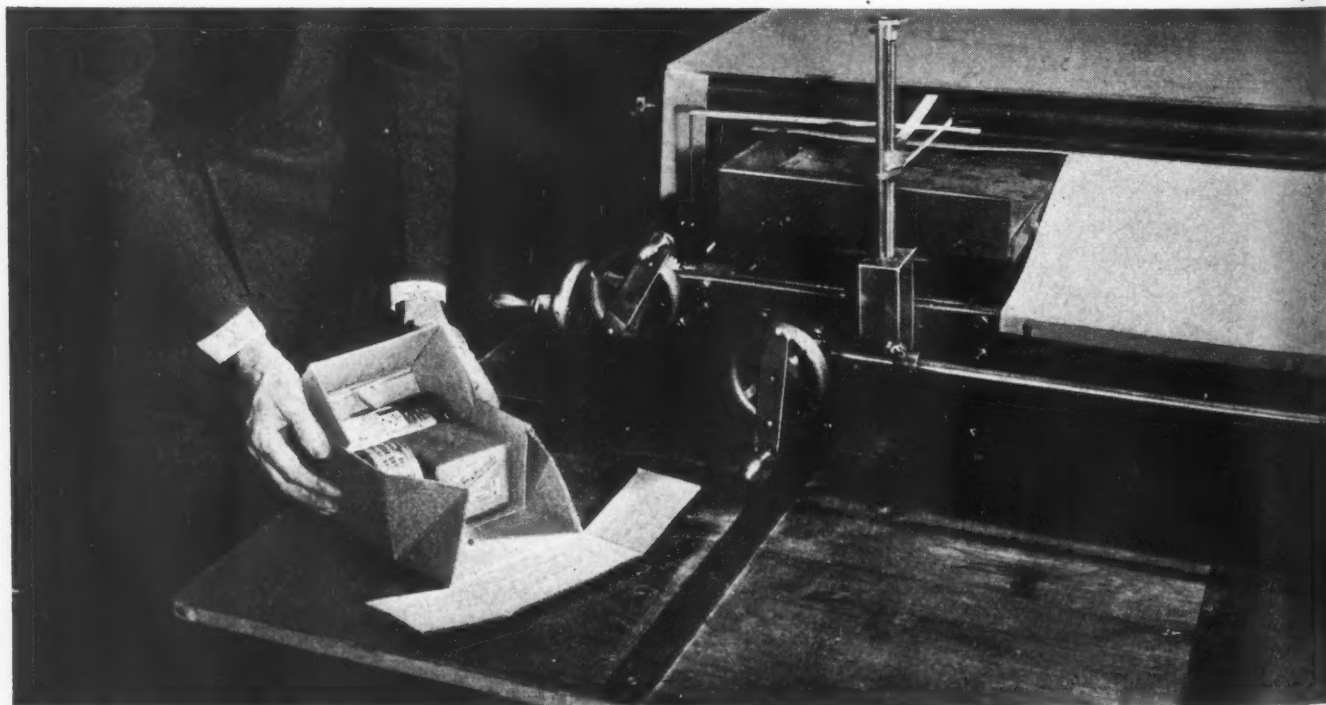
This operation sets up the creasing and slitting mechanism

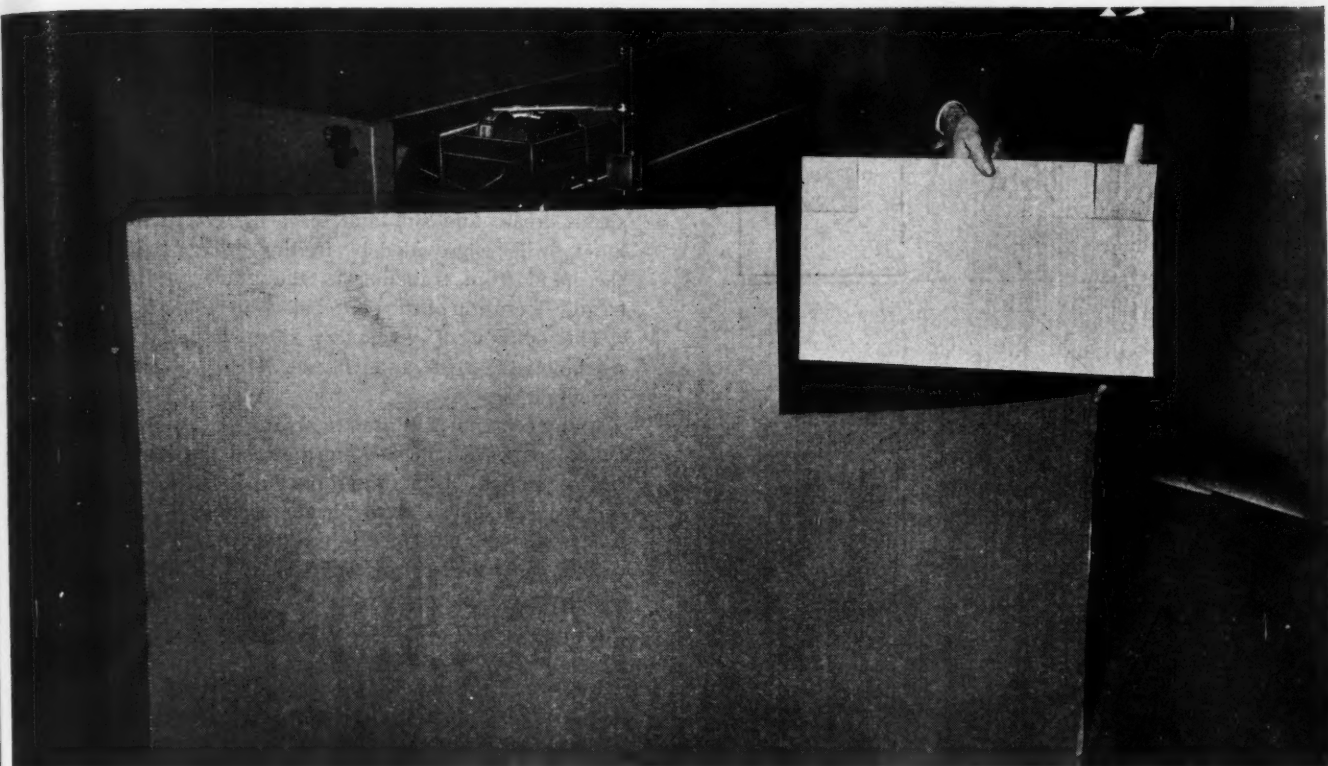
to form a box of the exact dimensions called for; at the same time, stop gauges are set which determine the over-all size of the blank which is to be cut from the stock sheet of corrugated board.

The sheet is positioned in the machine and a foot treadle depressed. This brings up a platen that not only shears off the entire box blank but also puts in part of the required creases and slits one edge of the blank. The blank is then re-

7—Carton is then formed around item as shown. With tucks and flaps in place, it makes sturdy, rigid box.

7





6

*6—Blank is cut and half of scores and slits made; blank is turned, reinserted, remainder scored and creased.*

versed and reinserted in the machine to complete the creasing and slitting of the opposite edge. This is done without changing the setting of the gauges.

The blank is then placed on a packing table and the shipment transferred to it from the package stand. The ends are brought up with the two hands, the tucks folded in and the flaps brought up, over and down inside the walls, closing the carton. A strip of tape across the top completes the package.

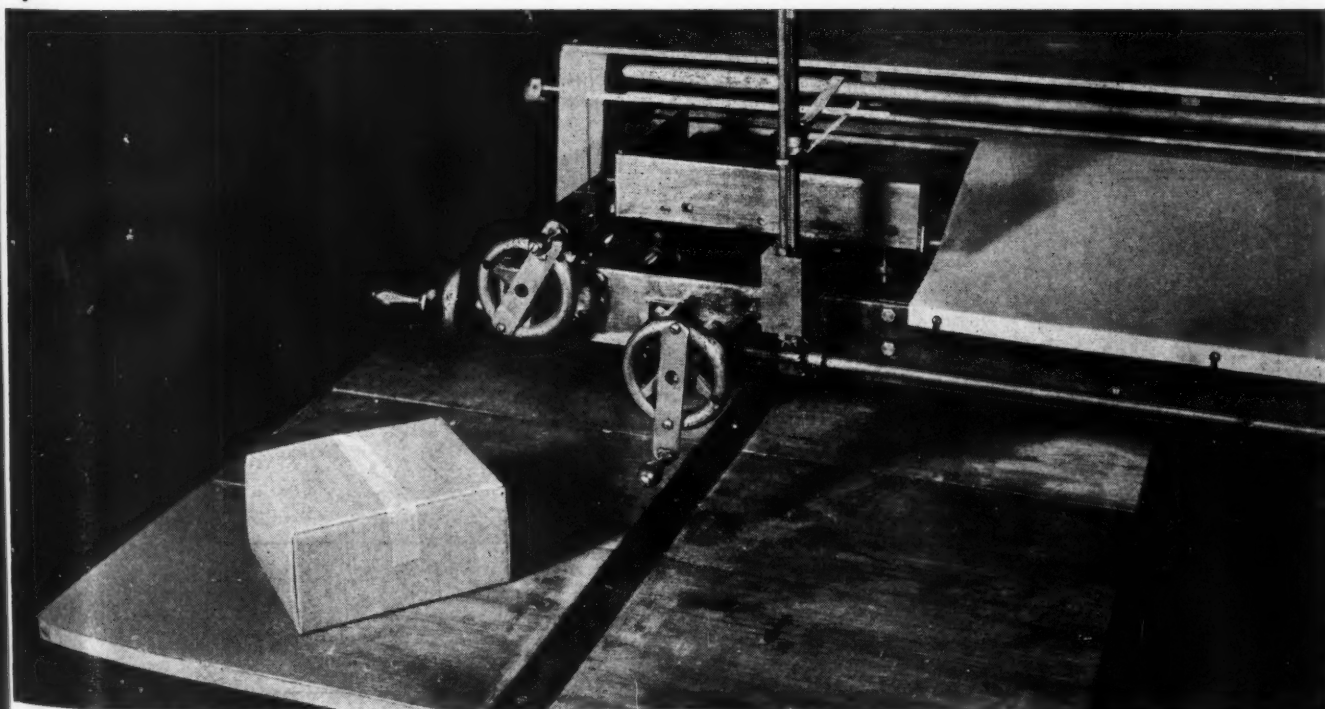
The packing operation can be done in a fraction of a second by an experienced operator.

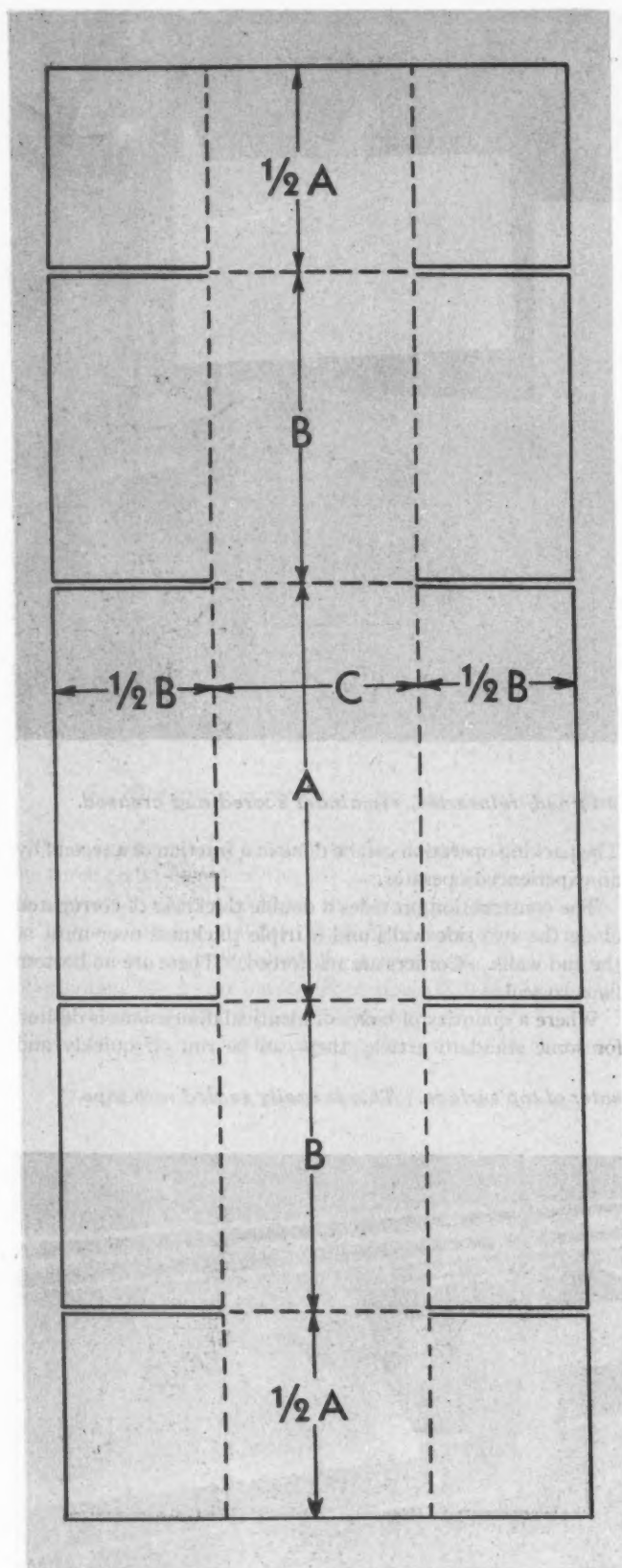
The construction provides a double thickness of corrugated along the two side walls and a triple thickness over most of the end walls. Corners are reinforced. There are no bottom flaps to seal.

Where a quantity of boxes of identical dimensions is desired for some standard article, they can be run off quickly and

*8—Package ready for shipment. Only opening is across center of top surface. This is easily sealed with tape.*

8





9—The new carton-forming machine can also be used to form the conventional slotted carton such as is illustrated by this diagram. Principal difference is the use of slots rather than slits as shown on preceding pages.

10—Showing a drawing of the slotted carton that would be formed from the blank illustrated in Fig. 9, above.

economically with one set-up of the machine. But changing the set-up is simply a matter of setting the sizing gauges.

By electrical operation of the commercial machine, it is expected that the adjustments for the three dimensions will be made simultaneously. This will simplify the operation, as it will only be necessary to feed the sheet to the machine and from there on it will automatically inject, cut blank from sheet, crease and slit, and eject the completed box blank. Safety will be provided by feeding prongs that will prevent the hand from traveling to the knives or platen. Foot-treadle operation of the platen also can be mechanized.

The opinion of machinery men who have viewed the machine is that its cost will not be excessive in view of the benefits it provides.

Many economies in use are obvious, in addition to the saving of boxboard and packing material through assuring that the carton actually fits the three dimensions of the item being shipped. Flat boxboard sheets of uniform size are more easily handled and stored in the shipping room than the great variety of formed slotted cartons which is otherwise usually necessary. Time of the packer in selecting a carton of the nearest practical size is saved. A close-conforming carton is always neater and safer to ship.

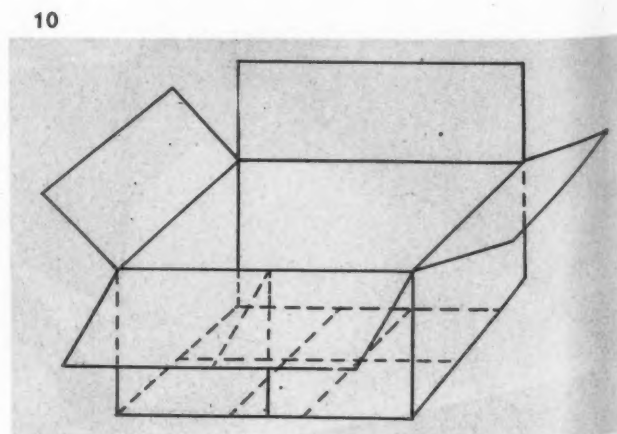
Many firms could salvage incoming cartons in good condition, cut them up and use the board to make their own shipping cartons. On the other hand, the machine would make it easy to have an individualized, printed carton. A department store, for instance, might readily print its sheet stock with a distinctive over-all design, giving the same recognition value to deliveries as is now obtained with Christmas boxes.

It should be pointed out that the present machine is a hand-made model intended only to demonstrate the principles involved. A number of refinements will suggest themselves once the machine gets into actual manufacture, but experts who have seen the model in operation agree that the principles are sound and workable.

The final proof will be a complete machine of commercial size equipped with motor drive. Despite the widespread interest shown, it is impossible to build the machine under present war restrictions. As soon as it can be built, the plan is to make a preliminary installation in a packaging department where thorough tests and time studies under actual operating conditions can be made.

Preliminary marketing plans consider both the outright sale of the machine and its use on a rental basis. Department stores, which average as high as 10,000 pack-up packages a day, have been among those most interested.

CREDIT: Machine designed, built and patented by E. S. Smithson, Ashland, Va.



# It's in the bag . . . for young and old

**T**welve games to sell for little more than the price of one, plus the convenience of having all twelve handily packaged in one bag, is the merchandising appeal of this novelty which is stepping up toy and variety counter sales throughout the country.

Morris Steinberg of the Morris-Systems Co., New York, is the idea-genius behind the game bag. No newcomer to the game field, Mr. Steinberg was at one time president of the American Checkers Assn. and for many years president of the Detroit Chess and Checkers Club. He has also been credited with inventing the game "400" and has spent the better portion of 25 years developing features and hobby shows for department stores.

The bag itself is an elongated hexagon of fairly rigid paper-board accordion-folded at the top and closed by means of two labels which come together and are perforated to make opening easier. A braid carrying handle is strung through perforations at either side.

The bags are being backed up by both newspaper and point-of-sale promotion campaigns. As an example, Fred Allen's new picture happens to be titled "It's in the Bag"—the tie-up was a natural and pictures such as the one in Fig. 3 are being released as publicity.

An easel-mounted card (Fig. 2) onto which are fastened all the pieces in the bag is provided to the outlets which have available window space, while a simple counter piece, suede finished in dark red, sets off an actual Game Bag to attract customer attention inside the store.

The Game Bag is meeting with great success as a gift item for the entire family and as a novelty for the boys in service. Sporting goods stores, department stores, toy stores and chain drug stores all over the country are the retail outlets for the Morris-Systems' new item and material shortages make the filling of orders a terrific job—so well has the promotion job been done.

1



1—The counter display for the "Game Bag" is a suede-finish maroon-colored unit kept simple purposely to show off the brilliantly colored package of 12 games.

2

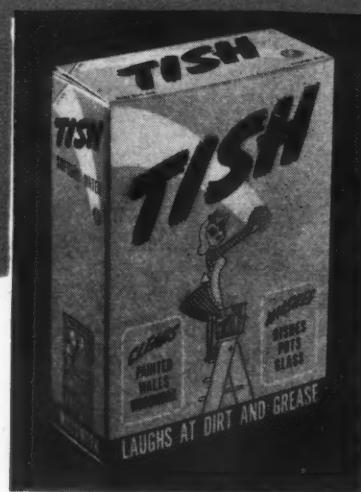


2—The contents of the bag are mounted on a large card for window and interior promotion. 3—Publicity includes pictures of comedian Fred Allen with the Game Bag. Slogan, "It's in the Bag" is also the name of the new picture starring the comedian.

3



# Packaging Pageant



**1** When the printed cellophane bag became a war casualty, E. J. Brach & Sons, makers of Mitzi-Mix Candy Assortment, anxious to maintain eye-appeal and appetite appeal, decided to use a full color picture of the actual candies lithographed on a sky-blue background. The bag is specially coated to lend eye-catching sparkle and brilliance to the inks, while the thermoplastic treatment gives full protection through heat-sealing closures. Package, Milprint Inc., Milwaukee, Wis.

**2** Revlon, in its constant search for news in colors and packaging, has hit upon an entirely new treatment for its latest shade "Dynamite." The cover of the set-up box is navy blue, seldom used for cosmetics, with the name dramatically presented in red against a "burst of dynamite." The ends of the box, usually neglected, are used to show a reproduction of a glamorous model photo accentuating the use of "Dynamite" nail enamel and lipstick. The square box in the background holds the powder, "Sheer Dynamite," and the color scheme is the same as on the other boxes except that the top of the box is a pale pink to give the feeling of the face powder. Since transparent film is not obtainable for cosmetic packaging, Revlon includes an insert under the lid of the powder box which shows the actual color of the powder within.

**3** Coughlin Bros. Co., Inc., of Boston has introduced a new double-action chewing gum cough drop, "Cough-lin's," in a brilliant red, white and brown folding carton which holds 15 pieces of gum. The "double-action" copy being of prime importance in merchandising is stressed by being centered on the package. Carton, Associated Folding Box Co., Boston, Mass., and Sample-Durick Co., Inc., Chicopee, Mass.

**4** Yellow for eye-appeal with touches of dark blue and magenta give a fresh, clean look to this new folding carton for "Tish"—a new cleaning compound made by the American Soap Powder Works, Inc., Brooklyn. The doll-like figures have been adopted as trade characters and are used on the sides and back of the package to illustrate uses. Carton, Acme Paper Box Co.

**5** Lauhala, a native Hawaiian material from the palm family, widely used in the islands for mats and baskets, was woven into mats, photographed and used for the paperboard box covers which tell the Hawaiian story for Hester May Candies, Honolulu. The boxes are printed by letterpress in a neutral tan as near to the actual color of the natural material as possible. The trademark in the upper left-hand corner is in palm green. Box, Fibreboard Products Inc., San Francisco, Calif.

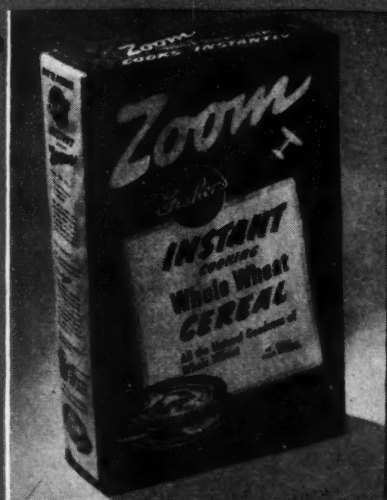
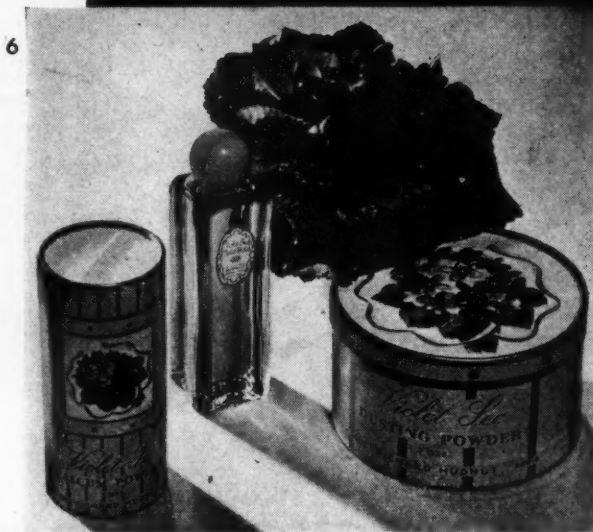
**6** One of Richard Hudnut's favorite scents has been given Violet Sec's appeal by means of new packaging. The whole family has been dressed in pale pink with gold stripes and spotlighted on each package is a stylized violet corsage design. The

redesign was inspired by the sudden rediscovery by the younger set of this old-time favorite. It has been dressed up to appeal to them and their springtime yen for wearing fresh violets.

7 A modernized Cinderella in profile decorates these newly designed cartons for Cinderella brand raisins packed by West Coast Growers and Packers, Fresno, Calif. The same basic design is used on all three cartons, distinction being achieved by means of different colors for the background. The seeded raisins on the left are in a carton with a blue background, the seedless (center) in red and the zante currants in green. A miniature carton holding 1½ oz. is also distributed for sale in confectionery stores. Cartons, Schmidt Lithograph Co., San Francisco.

8 "Zoom," a new instant whole wheat cereal made by Fisher Flouring Mills Co., Seattle, is packaged in a plain gray chip-board folding carton with an overwrap of printed waxed paper. On the face of the package, the background color is an electric blue which has been carefully pretested for contrast value on shelf displays. The name is defined clearly in white and throughout the face design, white leads the eye to type messages accented with reds and yellows. The choice of blue for the top and bottom of the wrap also helps keep the packages from soiling. Wrap, Pacific Waxed Paper Co., Seattle, Wash.

9 La Choy Food Products, a division of Beatrice Creamery Co., Archbold, Ohio, are packing "Vegamato," a vegetable juice cocktail, in two sizes. The brilliant over-all pattern of mixed vegetables used for the label is a natural color photograph reproduced in mouth-watering colors. All information concerning the product, including directions for use, are condensed to about 47 words and printed in clear, legible type in a space no more than 2 by 3 in. on the smaller size can. Labels, Calvert Lithographing Co., Detroit, Mich.





*Top-notch products have found good protection at low cost in bag packages.*

## The functional bag and its postwar job

by Henry W. Stevens\*

In the past three years many new papers and films have been developed for special packaging uses. These have been used by the various branches of the services in such large quantities that in many cases the materials have been allocated solely to war use. It has been necessary to use substitute materials, particularly in coating and laminating, and in spite of this handicap some good paper-bag packages have been developed for civilian use.

The moisture-vaporproofness of these packages will be improved when certain materials are released for general use. Closures will be stronger, more greaseproof and more water repellent as the thermoplastics are improved.

Today products that heretofore were distributed in metal containers only are being satisfactorily packaged in paper bags and bag-in-carton combinations.

Some companies were farsighted and had completed experiments for necessary changes long before shortages occurred. It is true that some of this work was motivated by a search for lower packaging costs but the process of change was accelerated by metal shortages. It is important to recognize, however, that the paper-bag packages will remain only so long as their performance, cost and acceptance justify their use.

Changes in food products have created the demand for good, protective, yet inexpensive packages. There are many new prepared foods now on the market or about to be pro-

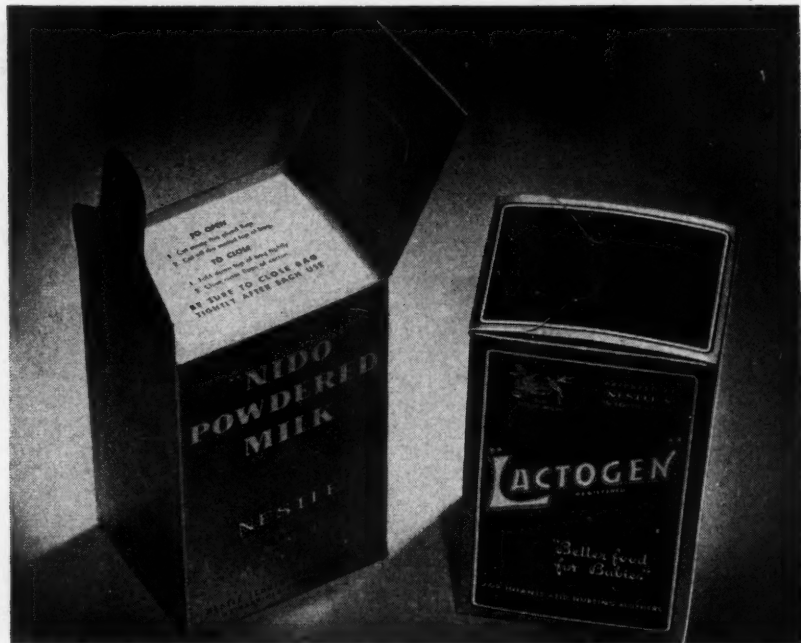
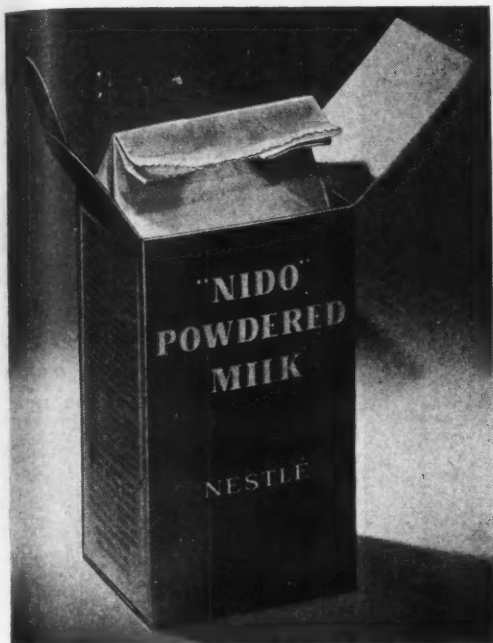
duced that are concentrated or in a dry form. In bags or paper containers these foods can be packaged as individual servings or units so that the final cost of the finished package may be no greater than the cost of distributing in bulk in more-expensive containers that open and reclose.

An outstanding example of the unit type of paper package is a dried whole milk package recently distributed in a limited area by one of the dairy companies. It was decided to package the milk powder in 4-oz. units, one unit to make one fluid quart of whole milk after the addition of water. Two units were included in each carton. With the use of moisture-vaporproof paper as the protective medium this unit packaging was feasible, whereas it would have been prohibitive had it been necessary to pack the product in inert gas or in a vacuum.

Dried whole milk has long been considered one of the most difficult of all products to package with proper keeping qualities. It has been considered necessary to exclude oxygen. Milk has a very delicate taste, and off-flavors result where excessive oxidation takes place. After extensive accelerated package and shipping tests, it was established that a good paper moisture-vaporproof barrier was adequate protection and that off-flavors did not result even after long shelf storage.

The outside container is a standard glued-end carton printed in three colors and made from white patent-coated news. The bags are made of laminated glassine printed one

\* Vice president, the Benjamin C. Betner Co., Devon, Pa.



1-lb. bag-in-carton package for powdered milk for South Africa. Re-closure flaps protect the product from dust while in use.

Illustration shows the sealed inner flaps for the Nestle South African powdered milk carton, which are cut away for use. The outer lock-flaps are reclosed as shown at right to protect the remaining powder.

color and closed by strip thermoplastic. The lamination consists of three sheets of pliable glassine adhered with moisture-vaporproof material the major constituent of which is micro-crystalline wax.

The weight of the finished lamination is 80 lbs. per ream (24 by 36:500). The laminated material weight approximates 15 lbs. per ream. The bags are coated at the mouth, the bottom and the seam by a strip of thermoplastic with a coating which weighs 4 lbs. per ream.

The bags are filled, sealed and then inserted in the carton. In the past the filling, sealing and insertion was a hand operation, but it is now almost completely automatic. The gluing of the carton flaps is done on a standard automatic carton gluer.

Tests of consumer acceptance of this package have been favorable, but due to shortages of whole milk powder its distribution will be limited until restrictions are lifted.

*Dried whole milk is most difficult to protect, but triple-laminated glassine bags do job in this 2-unit pack.*



Dried whole milk is better known abroad than in this country. For several years it has been exported by some of the American countries, and it has also been produced, packaged and sold abroad in consumer units, notably in South Africa.

In 1942, Nestle S. A., Ltd., one of the major dairy companies in South Africa, found themselves unable to obtain the vacuum package which they had previously used. Since that time they have successfully marketed their dried milk in a 1-lb. bag-in-carton unit having exactly the same specifications as the package described above, except that it is a single-bag, 16-oz. unit.

The laminated glassine liner bag is made extra long so that after the sealed top is torn off the remainder of the bag top can be re-folded. The housewife is instructed to re-close the bag liner after each use and to retain it in the carton so that instruction copy on the carton is always available.

The carton top is specially designed to serve a double pur-

*The protective qualities of duplex bags for frozen foods can be varied to meet the specific needs of the product.*





*Bags and bags-in-cartons for institutional size frozen foods run as large as the 50-lb. capacity at the right.*



*Examples of bags for tobacco. Left to right: kraft lined with laminated amber glassine, sulphite laminated to glassine and one of laminated opaque glassine.*



*Cigar clippings are customarily packaged in bags. These are kraft bags and are used with glassine liners.*

pose. The inner flaps are strip-sealed for easy opening, and these are also outer flaps which are of a lock construction, offering the housewife a re-closing feature to prevent dust settling on the top of the liner bag inside.

These dried whole milk packages were developed and pro-

duced in spite of wartime material shortages. Unquestionably the protective qualities will be improved and there is a definite possibility of lowered costs in the future. The success of the package is especially significant in that it does not employ either a vacuum or an inert gas for the protection of the product.

There also appears to be a future to some extent for the bag-alone package. Complete shelf units are produced and they can be attractively printed. Generally, in a protective shelf package, the bags are of duplex construction, the outer sheet when possible being made from bleached pulp to provide strength and printing surface and the liner of the correct protective material.

### Variety in liners

Liners used in duplex bags are of great variety. Laminations of foil, cellophane, glassine, parchment and single plys of any of these can be used, as well as pliofilm and plastic films. Most of the laminated combinations were unheard of four years ago, but their use is becoming more widespread as their keeping qualities become known.

Duplex and single-wall bags are now extensively used by the frozen foods and locker industries. Duplex bags are lined with cellophane, wet-strength laminated glassine and coated wet-strength papers. In frozen foods, moisture-vapor protection is extremely important, and the protective qualities of the liner can be varied with the needs of the product. Rubber was an important ingredient in the coated papers used for frozen fruits in syrup. Substitutes have been found since rubber has become unavailable and adequate coatings produced.

The single-wall bags usually used for carton liners for frozen foods are made from any of the above mentioned materials. The sizes run from 12 oz. in the retail packs to shipping carton liners holding 30 lbs. of fruit in syrup and 50 lbs. of loose frozen vegetables.

Most of the food companies are at the present time producing one package for the retail trade and another for institutional use. The change on the institutional type of package from a metal container to a (Continued on page 164)

# Aluminum drums . . . over the Hump

From a tonnage point of view, the biggest user of aluminum in the packaging field right now is the Army's Air Transport Command. Tens of thousands of aluminum gasoline drums are being fabricated for shipment to India, where they are used by the A.T.C. to transport vital fuel over the "hump" to our airmen in China.

Chief virtue of these drums is their lightness. Another important advantage is the fact that they are reportedly less susceptible to leakage than ordinary drums. They are made of 14-gauge aluminum sheet and weigh 21 lbs. each—approximately 30 lbs. lighter than a conventional drum. Already their use has made it possible for our transport planes to carry hundreds of thousands of extra gallons of gasoline during the months they have been in use.

While the use of aluminum drums for carrying gasoline is essentially an idea born of this war, the use of aluminum containers in other fields is by no means new. Much better known than the aluminum gasoline drum is the aluminum beer barrel, which was used as early as 1934. Here, lightness was a factor, as well as the strength necessary to withstand rough handling. In addition the aluminum container was said to have no effect on the taste or other characteristics of beer. Thousands of these barrels were made for many brewers before the war and most of them are still in use.

The chemical industry, too, has found many uses for aluminum containers. Numerous types of carboys, ICC containers and barrels and shipping drums have been used for some time for carrying such products as formaldehyde, glacial acetic acid, hydrogen peroxide and many others.

Fabricating techniques for all types of aluminum containers are quite similar. The standard aluminum beer barrel, for example, is made from sheets of alloy 53S-T. Sheet circles, called blanks, are cut and placed in a press. Successive draws form the blank to the rough outline of a half barrel and a final capping operation forms the chime section.

Trimming and cleaning follow and the half barrels are then welded together after the end bung has been welded into the hole cut for that purpose in the top head.

Each barrel is pressure tested to guard against "leakers," after which welding flux is removed and final inspection made.

Aluminum beer barrels are purposely made of heavy gauge sheet to withstand trucking and handling. Most of the aluminum barrels in use today are at least eight years old, and reported to be still in relatively good condition.

Gauge and alloy are suited to the individual requirements of the containers. In the case of the aluminum gasoline drum, lightness is the paramount consideration. To achieve this lightness without sacrificing too much strength, 61S-T alloy was chosen for both body and head rings. 14B&S gauge (0.064 in.) sheet is used.

The shells of these gasoline drums are joined together by a single circumferential weld, performed by a torch. The head rings are brazed to the shells.

The fittings are the same as those used on steel drums. The flanges are cadmium-plated steel.

The aluminum gasoline drums underwent exhaustive tests, both at Wright Field and in actual use in the China-Burma-India theater of operations, before being officially adopted for

1—Aluminum drums in New Kensington works of Aluminum Co. of America ready for shipment to India where they will be used to fly gasoline over the hump to China. Each drum weighs 21 lbs. as compared with 52-lb. steel drum.





2

the use of the Air Transport Command. Standard drop tests are said to indicate their ability to absorb more punishment than the 18-gauge sheet steel drums, while their non-rusting characteristics make them useful where the drums have to be stored out of doors.

Repair facilities have been set up by ATC at strategic points and stray dents and Jap bullet holes are quickly repaired. No records are available as to the ultimate life of these drums, although one of the original test drums made a dozen trips without the need for ground repairs.

The same characteristics that have made aluminum containers acceptable to American industry and to our armed forces will undoubtedly have a direct influence on the design of aluminum containers in the postwar era. Brewers have already indicated that aluminum beer barrels will be in even greater demand after the war and the chemical industry, having proved to its own satisfaction that aluminum containers are highly satisfactory for a wide range of products, will undoubtedly use carboys and ICC containers more and more.



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Although it is unlikely that aluminum containers will be used for the transportation of gasoline after the war, the experience gained through their use points to an increasing demand for lightweight aluminum containers in the field of air transportation. In the air as nowhere else, weight saving is of vital importance and, all other things being equal, the shipper will favor the container that will save him the most weight without sacrificing strength.

Probably most aluminum containers designed for cargo shipment in the postwar world will be of heavier construction than the present aluminum gasoline drum. In the estimation of engineers it is entirely possible to construct an aluminum container for shipment of fluid cargo that will meet all requirements as to light weight and strength.

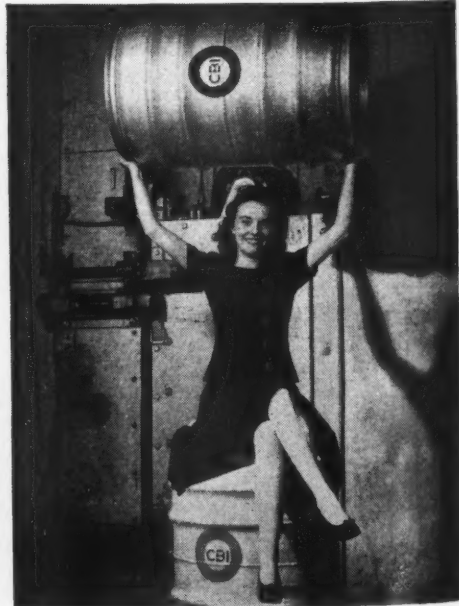
Another interesting postwar possibility for aluminum containers of this type will be in the export trade where such containers are used under tropical conditions. The experience

**2—Each drum half is given bath to cleanse it of dirt and grease. 3—Two drum halves are assembled by welding. 4—Welding line at the New Kensington works. 5—Lightness of drums; essential in air transport, is demonstrated by the ease with which this young lady holds it aloft.**

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of our armed forces in the tropical islands of the Pacific has indicated definitely that moisture is a serious problem and an aluminum container would provide a logical answer for such shipments.

Hardware dealers of tomorrow may expect to find aluminum containers playing an increasingly important role in the shipment of such products as varnish, turpentine and other related products. Aside from light weight which reduces shipping costs, the most important reason for the use of aluminum here is the fact that the metal in no way affects the color of the product.

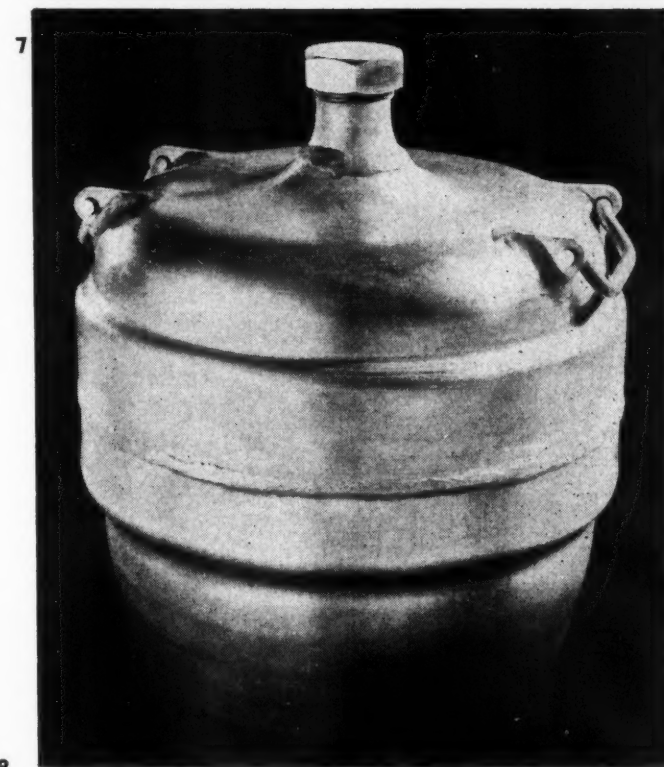
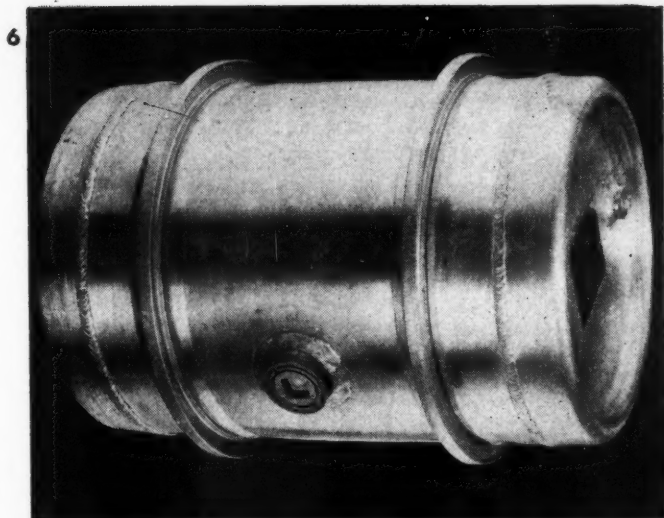
The food industry is another field that will be interested in the possibility of aluminum containers. All manner of dehydrated products, particularly those intended for bulk shipment to other countries, may be shipped in aluminum in perfect safety since the metal, it is said, has no toxic reaction with such foods. In addition, aluminum containers have proved useful for such products as castor oil, cod-liver oil, cottonseed oil, peanut oil and olive and palm oils.

Lard and other similar products have already been packed in aluminum with considerable success and there is no apparent reason why bulk shipment of this commodity could not be made in aluminum containers.

One characteristic of aluminum which is important in this field is the fact that the salts of aluminum, when dissolved, are colorless and have no effect on the color or other characteristics of the product. Thus, even though a minute amount of the aluminum surface might conceivably be dissolved into the product, it would do it no harm. Of course, in the case of products where such a reaction might conceivably have a bad effect on the contents of the container, it is quite possible to coat the interior of the container with some type of plastic coating that would make it highly resistant to attack.

CREDITS: Aluminum drums and carboys by Aluminum Co. of America, New Kensington, Pa.

6—I.C.C. straight-sided aluminum shipping drum has been approved for commodities requiring 42-B, 42-C, 42-D containers. Comes in 30-, 55- and 110-gal. sizes. 7—13-gal. carboy type container. 8—Applying pressure test to aluminum beer barrel. 9—Halves for beer weigh only 18 lbs.



# Display



**1** The red, white and blue "Victory Garden" display rack for Vaughan's seeds is again appearing in retail stores for the second year. The top panel is red, the lower one white and the sides and bottom blue. Decoration on the base is in red, yellow and blue to catch the eye. The rack is 30 in. wide, 15 in. deep and 55 in. high; nicely calculated to combine maximum visibility with the convenience of self service. At the same time it does not obstruct a clear view of the store. The display is so arranged that the complete assortment of seeds is within easy reach at all times. The racks can hold at least 78 varieties—all visible. Display, Chicago Cardboard Co., Chicago.



**2** A distinctive new symbol for the Schenley Distillers Corp. "Golden Wedding" whiskey consists of a bell jar enclosing the figurines of a bride and groom dressed in the mode of the Gay Nineties, while the slogan, as a harmonious complement, is worded "Choice of a Lifetime." This display not only lends itself as a perfect trademark emblem from a design viewpoint but it also is a fine permanent piece which will give years of service in even the finest outlets. The simple metal plaque at the bottom, engraved with the name "Golden Wedding," is all that was considered necessary to put across the promotion story. Dolls by Peggie Porcher Jackson Heights, N. Y.

**3** A folding carton which opens up to make an attractive counter display is used by the new Marday bowl, food and utility covers. The display is colorful enough to demand counter space in the retail store and the product is sufficiently attractive, especially in these times when the conservation of foods is so important, to make it a fast-selling impulse item. Three covers are packaged in an individual, printed sealed envelope. The envelopes can be lifted out of the display easily by the customer and carried home without the need for additional wrapping. Carton, Robert Gair Co., Inc., New York.



# Gallery

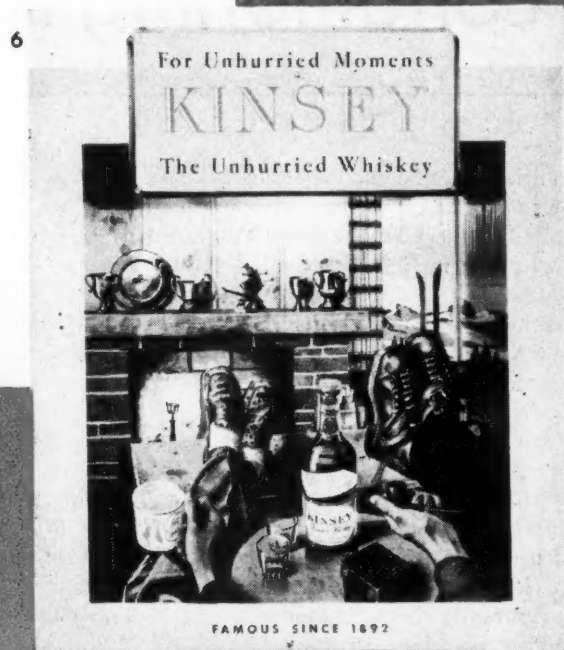
4 Libby's mustard display basket is printed in full natural color with red and green predominating and holds one full case, 24 jars, of mustard. It is suggested for use in any part of the store, especially on top of the meat counter—at a spot near the weiners, lunch meats and other sausage items—to increase impulse or self-service sales. Display, Magill-Weinsheimer Co., Chicago, Ill.



5 Permo Products Corp., makers of Fidelitone Long Life phonograph needles, is supplying more than 5,000 retailers with these combination display and merchandising cabinets. A compact unit, it is only 12 in. wide, 9 in. high and 8 in. deep. Its glass covered open face acts as a show window for the display of actual merchandise while two drawers in the rear provide ample space for stock. The top portion is a deep orange lacquer and the base is finished in a burled walnut and black lacquer. The whole unit is made of wood. Display, Harve Ferrill & Co., Chicago, Ill.



6 A painting by John Atherton, originally used in magazine advertisements with great success for the Kinsey Distilling Corp., was carefully repainted in three sections and lithographed to make this three-dimensional display for Kinsey whiskey. It is intended for a window or interior display and is suggested for use with bottles of the product. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.



7 According to The Norwich Pharmacal Co., here's the Zemacol prescription which starts from scratch—for scratchers! The centerpiece set up in any available window and surrounded with a set of effective counter displays results in a window that is said to make the sales of the product soar. Tying in with ads in national magazines, the new Zemacol display stresses the multiple uses of the cream. Display, Niagara Lithograph Co., Buffalo, N. Y.





1

1—Clean air at constant temperature and humidity facilitates filling, safeguards quality of Junket powders.

## Air conditioning the packaging operation

**A**ir conditioning is finding increasing application in the various phases of packaging. While installations in the last three years have been largely limited to war plants, it is felt that many packaging industries will want to consider its possible advantages in turning out a better postwar product.

Air conditioning in industrial applications should not be considered merely as a means of cooling the air for comfort—although this may be an important factor in many instances from the standpoint of both product and personnel.

It provides the correct, controlled temperature to meet the specific needs of the conditioned space, whether it be for human comfort or for an industrial process. It provides the correct, controlled humidity for the efficient handling of packaging materials or for the protection of an hygroscopic product. It cleans the air for the protection of the product and keeps it constantly circulating for proper ventilation and consequent efficient working conditions.

One general type of application is in the plant or room where hygroscopic products are filled into packages and sealed. Conditioned air at low humidity thus makes sure that the product is dry when packaged, and an efficient moisture-vapor barrier package carries on from there. In the case of highly hygroscopic powdered products, it is also often found

that maximum filling speeds can be maintained only in a dry atmosphere.

In general, air conditioning of the packaging operation is found beneficial for all products which, in the finished state, are subject to damage by pickup of moisture. This includes many pharmaceuticals, cosmetics, chemicals, confections, powdered or dehydrated foods and metal products with fine-ground surfaces.

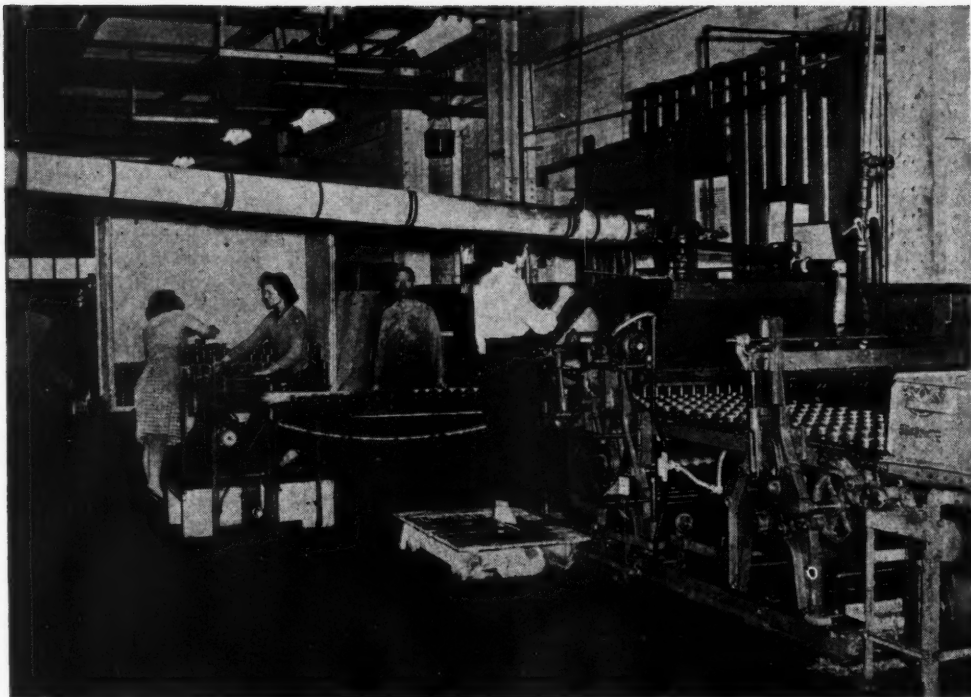
Air conditioning is essential to the manufacture and packaging of silica gel, which itself serves as a chemical "air conditioner" within the package in the war-born Method II pack. Obviously, this most highly hygroscopic chemical would lose much of its effectiveness if it were exposed to a damp atmosphere at any time prior to use.

The second general type of air-conditioning installation instrumental to packaging is in the manufacture and storage of packaging materials. Inks and adhesives will be no impediment to high-speed production, if they are dried in conditioned air. Packaging films and coated papers will, of course, handle better and store better in a controlled, dry, cool atmosphere. There are many other specific applications in this field.

The packaging room of the Chr. Hansen Laboratories,

2

2—Cans are filled with dubbing compound and enter air-conditioned tunnel for cooling before packing at R. M. Hollingshead plant.



Little Falls, N. Y., where "Junket" powders are packed, is a good example of a product application. With controlled temperature and humidity, the powder flows into packages freely and uniformly and weighing and packaging are accomplished without interference from weather and other conditions.

In many cases, a product completes its processing steps at a high temperature and packaging must wait until the product is "set" and cooled. Cooling tunnels with conditioned air will expedite handling and permit a continuous flow of the product to the packaging department.

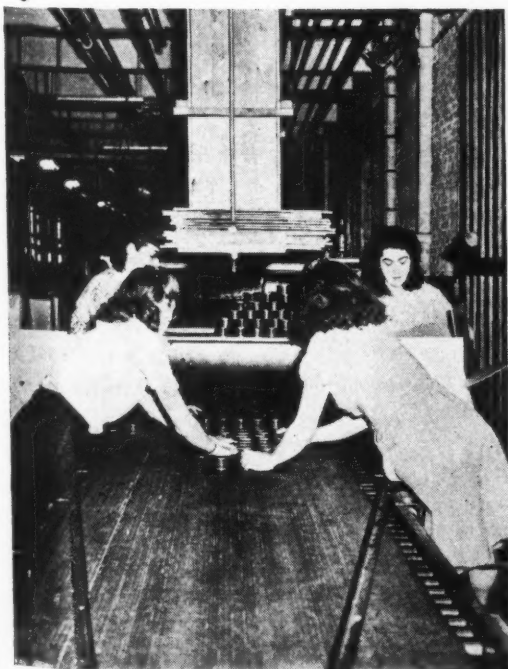
The R. M. Hollingshead Corp., Camden, N. J., makes a

compound for waterproofing Army shoes. Cans are filled on a moving belt, pass under a flame, and then enter an air-conditioned tunnel where the compound is set and cooled. Leaving the tunnel and continuing on the same belt, the cans are capped and moved to the packaging stage. The cans, filled with a creamy substance that will stay solid even in tropical climates, are here packed for overseas shipment. The air-conditioned tunnel quickly cools the waterproofing compound from 135 deg. to 90 deg., and handles 135,000 cans in ten hours.

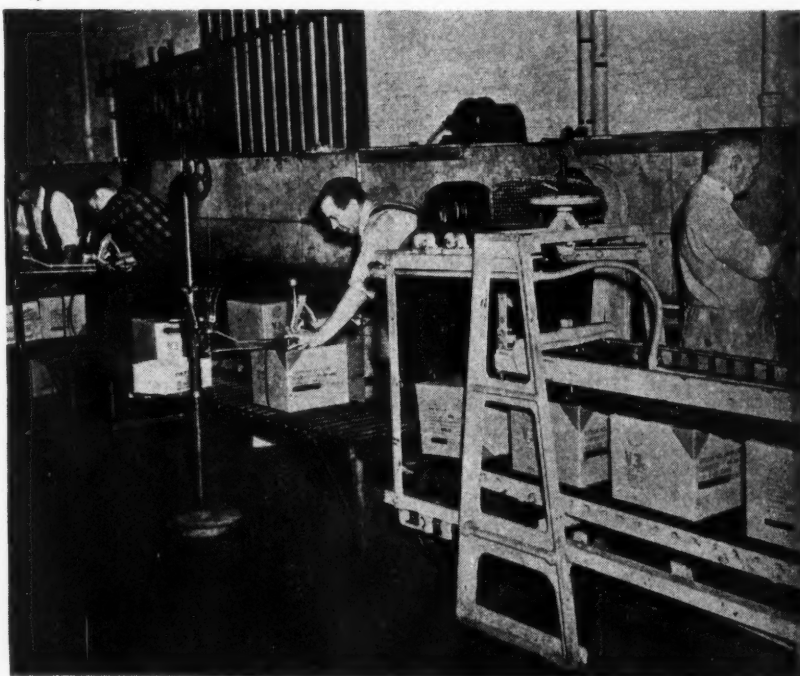
Among the installations instrumental to the production of packaging materials is the one at the Ace Carton Corp., Chi-

3—Leaving the air-conditioned tunnel, cans of dubbing compound are capped and move on belt ready for packing. 4—Cases are sealed and wirebound for shipment. Rapid cooling makes high-speed packaging possible.

3



4



cago. In familiar routine, carton board is printed—passing through color presses several times—then scored, cut and folded. The condition of air in the room where the work is done is important to the success and speed of these operations. The air must be sufficiently moist to prevent the cardboard from cracking, yet dry enough to permit ink to set rapidly. Constant size of the board is important for perfect color registry and for cutting to exact dimensions and so expansion and contraction of the board are eliminated by air conditioning. Glues used in the carton construction are dried properly and at uniform rates with controlled humidity and circulation of air.

Ordinary cellophane is very sensitive to moisture. In cold, dry air the sheets tend to crack; in air too moist they become tacky and difficult to handle. Air conditioning is, therefore, used to maintain the desired temperature and humidity wherever quantities of cellophane are handled. A typical installation is at the Railley Corp., Cleveland, which manufactures gas capes of cellophane for the Army.

Air conditioning of the packaging operation has received great impetus under the strict requirements of war production. It has demonstrated advantages equally applicable to civilian production and these advantages will be fully explored in the next few years.

Air conditioning engineers agree on certain basic considerations for those who are considering industrial installations. There are three general types of air-conditioning equipment: (1) self-contained, factory-built, within-the-space units; (2) self-contained, factory-built, central plant units; and (3) custom-built central plant units. Each installation is a separate problem and should be treated as such. For the basic facts, the installation engineer must depend upon the plant manager. The following is offered as a check list of points to be considered:

1. Size of space to be air conditioned
  - a. Exactly what space is to be air conditioned?
  - b. Are you contemplating expansion in the future?
2. Type of business
  - a. Are there unusual conditions of smoke and odors,

- or any other industrial processes to be considered?
- b. Does the space require special consideration of employees or products?
- c. Is the merchandise or product exposed to dust and dirt?

3. Maximum occupancy

The human body is constantly giving off heat. Therefore, the following occupancy conditions must be considered:

- a. What is the maximum number of people who will occupy the space at any one time? For how long does this condition continue?
- b. What is the degree of activity? People sitting at ease will require less cooling than those engaged in active pursuit.

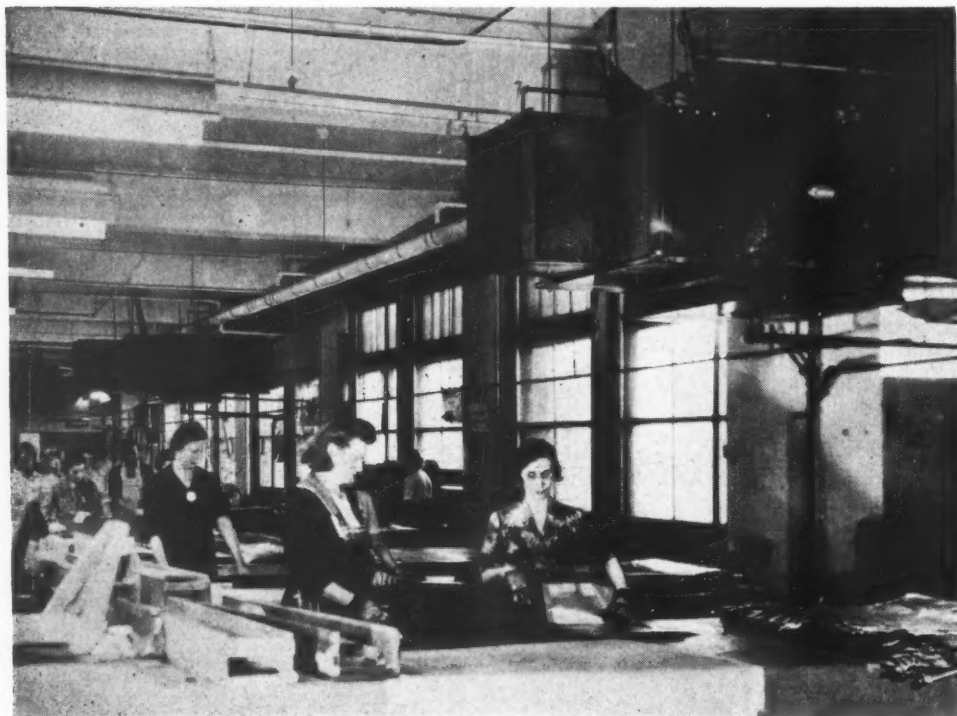
4. Other load factors

- a. What is the total light wattage? Do you expect to add any in the future?
- b. What cooking appliances or other heat-producing machines or processes are in regular use?
- c. Are there any motors in regular use? They add heat to the space which must be removed by air conditioning.
- d. Exposure to the sun. The amount of glass area, the existence or non-existence of shades or blinds, the type of construction, the nature and proximity of other buildings. All these are factors of importance.

5. The installation

- a. Is there adequate space for installation of the equipment without interfering with the building's normal uses?
- b. Is there a dependable, experienced air-conditioning contractor available, handling a good line of equipment and with a good record of satisfied users to do the installing.

ACKNOWLEDGMENTS: To Margaret Ingels, engineering editor, the Carrier Corp., for information and photographs; to the Westinghouse Electric Elevator Co. for additional information.



5—Air conditioning facilitates handling of cellophane at the Railley Corp. Material is apt to crack when cold or become tacky when too hot.

# The Misplaced Customer



Under the rush of war business handled by new and untried employees, the customer has sometimes become lost or misplaced.

This has not happened at F. N. Burt Company, we are proud to say. Although we are busier than ever before in our lives, turning out our automatically-produced small round, square and oval set-up boxes; and manufacturing our new wartime packages—paper lipsticks, paper cans, Lam-lac, etc., we have managed to be at least polite to all.

We hope to be remembered not only for courtesy, but efficiency, economy and satisfactory packages as well.

## **F. N. BURT COMPANY, INC.**

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New York City - Philadelphia - Boston - St. Louis - Atlanta - Chicago - Cleveland  
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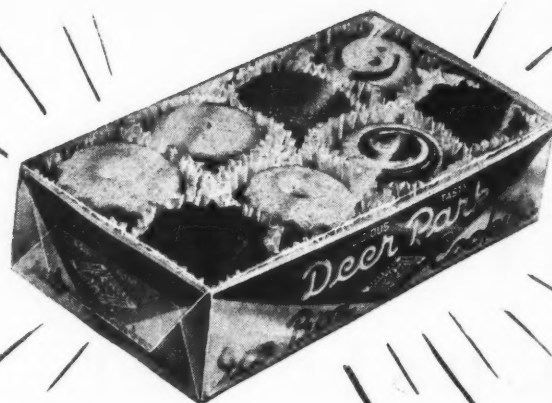
San Francisco: 220 Bush Street • Telephone Yukon 0367

Newark, N. J.: 915 Military Park Bldg. — Telephone Market 3-0788

### **CANADIAN DIVISION:**

Dominion Paper Box Company Ltd., 469-483 King St. W., Toronto 2, Canada

This little package  
went to market...



This shopper quickly  
took it home!

Most women associate a smartly-tailored appearance with quality. That's why this expertly-fashioned eye-catcher didn't spend much time on the dealer's shelf. An appealing package *always* has a tremendous sales advantage.

Many manufacturers are convinced that a good package will be an even greater asset in the postwar market—because as rationing regulations are relaxed, shoppers will be more discriminating than ever. Far-sighted executives are making their plans accordingly. A number of them have already placed orders with us for new machines—machines which will feature the very latest innovations in the field of packaging.

Over thirty years' experience in solving difficult wrapping problems has provided us with the knowledge and skill needed to assist you in choosing the *best* machine for your purpose. And if we cannot adapt one of our 80 *standard models* to your requirements, then our designers will get busy at their drafting boards. One of the chief reasons for the continued growth of the Package Machinery Company is its ability to *serve the varying needs of individual customers*.

Consult us in the early stages of your packaging plans. Our suggestions may lead to better packages and lower costs.



Write for our booklet  
"Sales Winning Packages"

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Springfield 7, Massachusetts

30 Church St., New York 7 • 111 W. Washington St., Chicago 2  
101 W. Prospect Ave., Cleveland 15 • 443 S. San Pedro St., Los Angeles 13  
32 Front St., W., Toronto 1

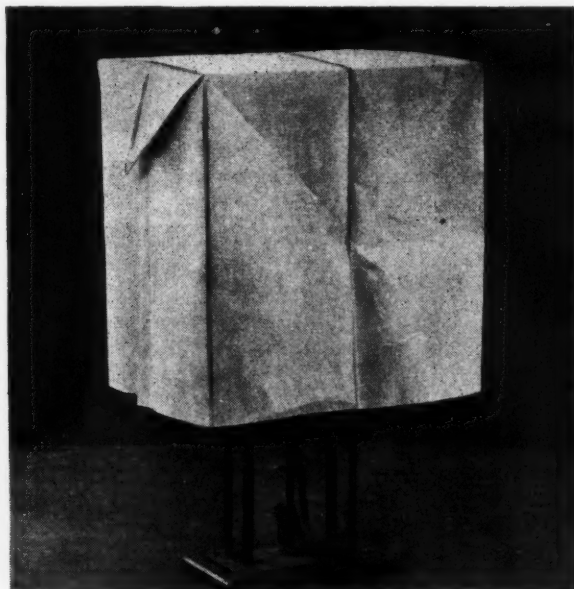
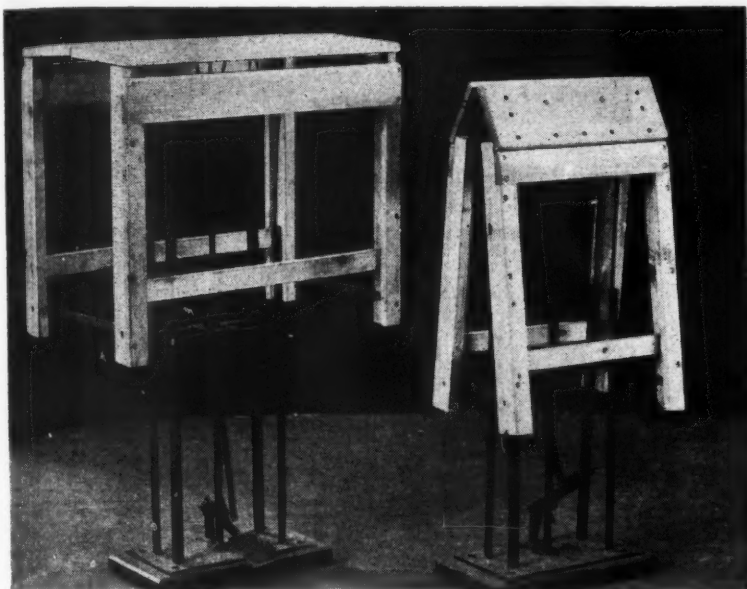
# PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

# TECHNICAL SECTION

CHARLES A. SOUTHWICK, JR. TECHNICAL EDITOR

• MACHINERY  
• PRODUCTION  
• TESTING



1—Mandrels for forming and folding the case liners. 2—Liner formed and folded prior to insertion in box.

## Testing case liners . . . I. Methods and apparatus

by Henry A. Wolsdorf<sup>1</sup> and Edward G. Mullen<sup>2</sup>

One of the important activities of the Container Coordinating Committee has been the promotion of development projects on military packaging. These projects, which are usually of a general nature, are carried on for the purpose of improving military packaging for the Armed Services and other war procurement agencies. This article is presented to illustrate the nature and extent of such development projects and also to give an account of one of the projects just completed. As progress on other projects develops further interesting accounts will be available.

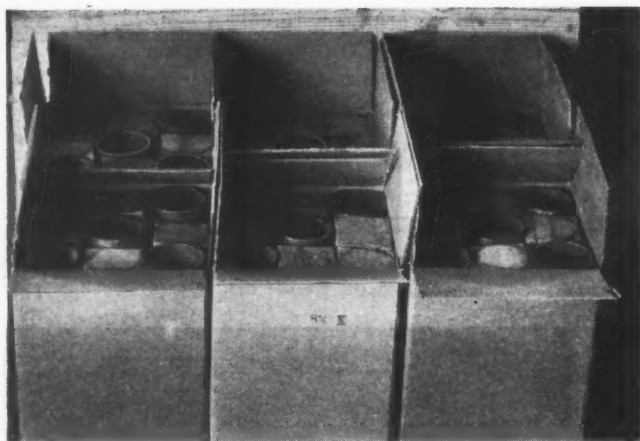
More than a year ago, reports on the performance of case liners used in military packing indicated that serious failures were occurring. Failures were not limited to the case liner materials but occurred quite freely in seams and in closures as well. It was evident that decisive steps must be taken to prevent such failures. Although improvement of the case liner material presented one problem and improvement of the seams and closure another, both problems had to be solved and coordinated to provide satisfactory case liner performance.

In approaching the problem of improving case liner ma-

terials it was felt that the usual physical tests required under Federal Specification UU-P-271a were ineffective. In fact, a considerable number of materials that passed these physical tests were giving poor performance when used in military packages. It was therefore decided to make a series of actual case liner tests for the purpose of obtaining data that might be correlated with physical tests. As a result, through contracts awarded by the Office of Production, Research and Development, arrangements were made to have case liner tests made at the Package Research Laboratory, Rockaway, N. J.,

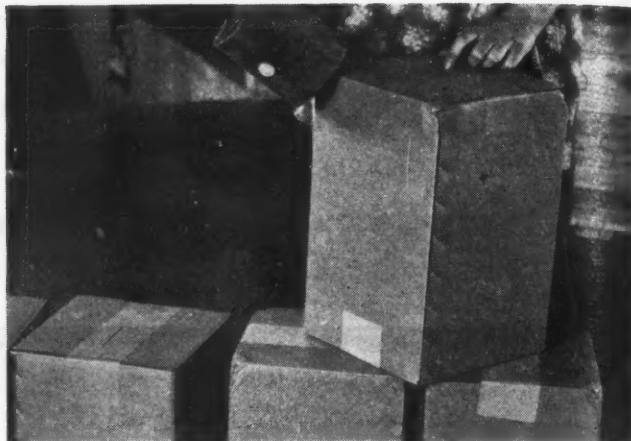
*This is the first of two articles reporting on what is probably the most extensive research yet conducted seeking to determine the causes of failure in case liners. This article describes the methods and apparatus of testing; a subsequent paper, discussing physical tests and conclusions, will be presented in a future issue.*

<sup>1</sup> Chairman, Container Coordinating Committee, WPB.  
<sup>2</sup> WPB Consultant.



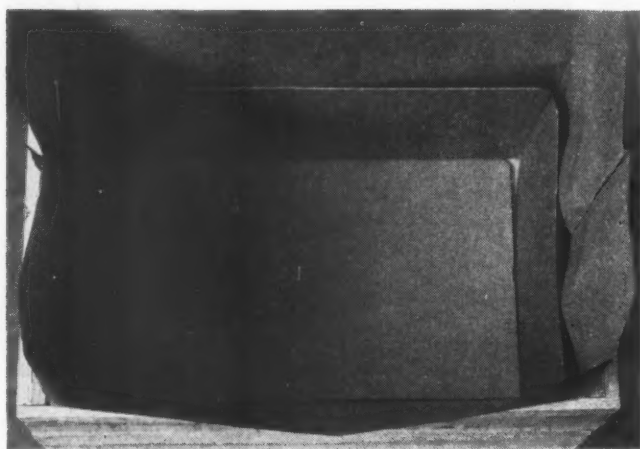
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3—Showing method of packing the test load in cartons.



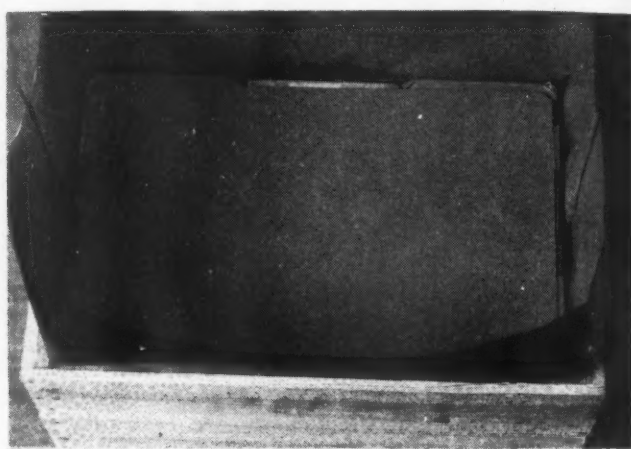
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4—Flattening the corners on packed fibreboard carton.



5

5—Showing liner inserted in large wooden box, with corrugated bottom pad and side and end pads in position.



6

6—Wooden case loaded with its test cargo, the top pad is in place and the liner is in position ready to seal.

and physical tests at the National Bureau of Standards, Washington.

The physical tests that are to be correlated with the case liner tests are to include the usual tests for basis weight, water resistance, tensile strength and stretch as well as new tests for flexibility, folding endurance, abrasion, tearing resistance, water-vapor permeability and resistance to mildew and molds. When sufficient information on these tests is at hand, a separate account will be published.

Seam failures on case liners indicated that inadequate adhesive had been used. Closure failures indicated that inadequate adhesives had been used, or that the seal had been improperly made, or both. Solution of the problem therefore required the development of adequate adhesives for sealing case liners and a means of properly sealing the closure. Extensive tests for adequate adhesives were already under way at Forest Products Laboratory, Madison, Wis., and it was decided that the results of these tests would provide the information desired on adhesives. The problem of devising suitable means of making closures was referred to Arthur D. Little, Inc., Cambridge, Mass. Under contract from the Office of Production, Research and Development, WPB, this laboratory has developed a universal tool that can be used for making all kinds of closures on case liners of asphaltic construction. Further information about this tool will be available at a future date.

Case liner tests to be made at Package Research Labora-

tory were planned for the purpose of determining what actually happens to case liners under service conditions. A case liner, when in a box that is distorted under load, is subjected to combinations of stresses that are not reproduced when the case liner material is subjected to the ordinary physical tests in a laboratory. If the effect of this action on case liners can be determined and new physical tests devised to reproduce equivalent action, then, in the future, performance of any material as a case liner may be predicted by means of the new physical tests.

In planning the case liner tests it was agreed that service conditions existing in the field should be reproduced as nearly as possible. Since military packages are shipped to arctic bases as well as to bases in the tropics it was decided that tests should be made under conditions simulating both of these field conditions. The arctic test adopted was initial rough handling of the test box, followed by exposure at low temperature until the temperature inside the box was  $-10$  deg. F. Additional rough handling was provided for immediately after removal of the boxes from the cold room. The tropical test consisted of initial rough handling, followed by exposure at  $100$  deg. F. and  $90\%$  relative humidity with intervals of spraying with water to simulate rain. Additional rough handling was also provided for after this test. Severity of the tests was to be determined on the basis of actual performance of case liners in the field. Certain case liners were reported to be giving satisfactory performance while others

were reported to be failing. The severity of test conditions was therefore to be adjusted to permit the satisfactory liners to pass the test and to cause the unsatisfactory liners to fail in the test.

A performance test on case liners should necessarily include liners made from representative types of commercial waterproof materials. Those to be included were creped and uncreped, reinforced and unreinforced, treated and untreated, materials of low and high water resistance and water-vapor permeability and materials laminated with asphaltic and non-asphaltic media.

In order to introduce into the test the various combinations of stresses that may be set up in case liners, it was decided to use the various common types of shipping containers as test boxes; namely, nailed wooden boxes, wirebound boxes, plywood boxes and fibreboard boxes. With these kinds of boxes various degrees of distortion of the liners and strains at the score lines can be obtained, as well as other forces that tend to break down the liner in other ways.

It was decided to use two sizes of boxes for the test. The small box, weight of contents about 70 lbs., representing the size usually handled by one man, had a fairly high concentration of load. The large box, weight of contents about 200 lbs., representing the size usually handled by two men, had a lower concentration of load. These two sizes were selected to demonstrate whether *large deflection* of a box or *high concentration of load* has a greater effect on the performance of a case liner. The load in the box was to be composed of small parts, forming what is called a "difficult load."

The general plan having been formulated, a need was felt for consultation with an advisory group from industry. At the request of the Container Coordinating Committee, WPB appointed a task group to work with the Committee. The task group has cooperated very closely with the Committee and its advice, backed by years of experience in research and plant operation, has been of great value to the committee.

In order to take care of all the variables involved in testing various constructions of case liners in various types and sizes of boxes and under two conditions of exposure, a large number of boxes would have to be tested. Unless some of the variables could be eliminated early in the test, more than 2,000 boxes would have to be tested. A tentative schedule was made for testing 40 boxes per day in order that the project would be completed in a reasonable length of time. On the basis of testing that number of boxes daily it became apparent

that no laboratory—government or industrial—was fully equipped or had the facilities and personnel to handle so large a program. Storage space for knocked-down boxes must be available as well as facilities and personnel for assembling the required number of boxes daily. Similarly, storage space for the case liners and facilities for forming them were required. Test boxes must be packed and tested and others unpacked each day. After unpacking, each case liner must be observed carefully for damage and an accurate record made. Handling the boxes in and out of test equipment and exposure rooms required considerable handling facilities. Each one of these operations presented problems of such magnitude that no package testing laboratory anywhere was sufficiently equipped to proceed with the project.

A survey of the facilities of package testing laboratories was made to determine which laboratory was best equipped to carry on the test. It was found that the Package Research Laboratory was best suited for the project since it had most of the testing equipment required, storage and working facilities were available and additional personnel could be obtained. There were no exposure rooms of the size required, so these would have to be built. The Container Coordinating Committee therefore selected this laboratory to carry on the tests.

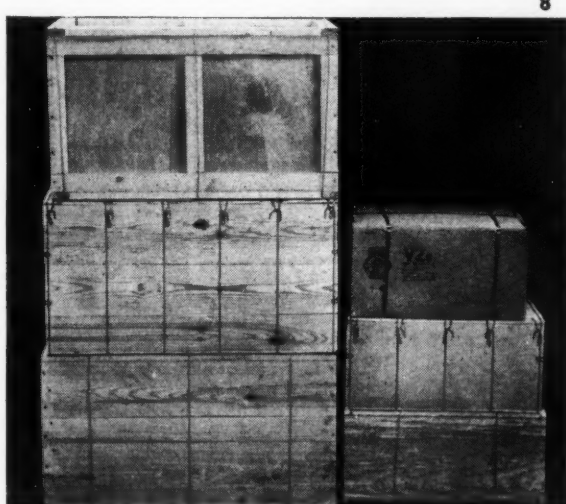
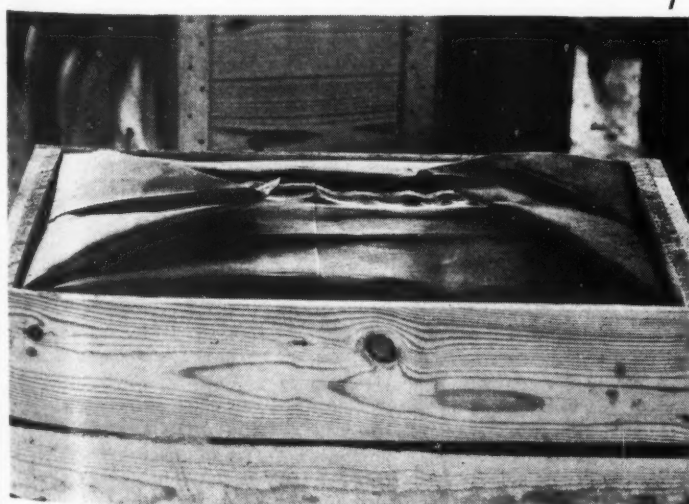
The standard rough-handling test machine (Fig. 9) is a hollow hexagonal drum 14 ft. in diameter which revolves at one revolution (six falls) per minute. In this test, a container is made to fall on its faces, corners and edges. The rough-handling machine simulates treatment a container receives under actual transportation conditions.

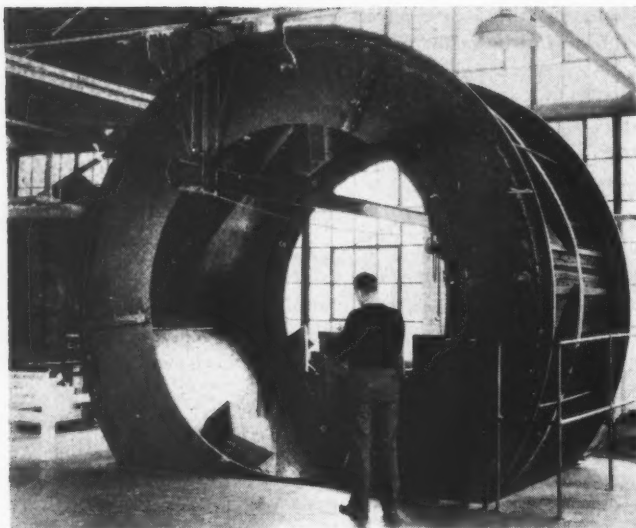
The arctic room (Figs. 10 and 11) is fitted with automatic controls to regulate the temperature in the room and to control the temperature inside the box. For our test, the air control was set for -30 deg. F. and the box control at -10 deg. F.

The tropical room (Figs. 10 and 12) is fitted with automatic controls for temperature, humidity and water spray. In our tests, the temperature was set for 100 deg. F., the humidity for 90% and the water spray for 20 minutes' operation out of each hour. The spray nozzles deliver a uniform distribution of water over the entire area at a rate of 15 in. in 24 hours.

The drop test (Fig. 15) is a test in which conditions can be duplicated for every box tested. The apparatus consists of a sling to hold the box, a scale to set the height accurately, a release to permit the box to drop freely and a solid surface such as a steel plate on which the box can strike. The corners of the box to be tested are numbered from one to eight, alter-

7—Case liner sealed and folded down. 8—Showing the various types and sizes of boxes that are used in test.





9

nating ends with each succeeding number diagonally opposite its predecessor.

The vibrator (Fig. 14) consists of a vibrating table with an area  $5\frac{1}{2}$  ft. by 4 ft. and a capacity of 1,400 lbs. It operates at 500 revolutions per minute with a vertical and horizontal travel of  $\frac{1}{4}$  in. This vibrator simulates the rough usage a container receives in transit either from bumps received in freight cars or in trucks.

The spray room (Fig. 13) is equipped with spray nozzles which produce a uniform distribution of water over the entire area at the rate of 1 in. of water every 30 minutes.

#### Test methods

**Arctic test:** Each box after closing was allowed to stand overnight, then given 30 falls in the 14-ft. revolving drum. After this, 10 large and 10 small boxes were placed in the spray room and sprayed for one hour together with a control box of the same construction. While still wet, these boxes were placed in the arctic room and the compressor started. The air control was set at  $-30$  deg. F. and the box control (thermo-couple inside the control box) set for  $-10$  deg. F.

In order to do away with as many variables as possible, it was decided to employ the same case liner construction for all the papers selected for study. This can best be described as the envelope style with pasted side seams. One of the liners had a center seam with a pasted bottom and employed a pressure-sensitive seal. In all, some 30 different liners were studied. All liners were made in two sizes. The large size held a cartonized load of 175 lbs. and the small liner a loosely wrapped load of 66 lbs. The load consisted of 3 ft. round by 3 ft. long hollow steel cylinders and 3 by 3 by 3 ft. wooden cubes. The arrangement of the load was the same for all liners.

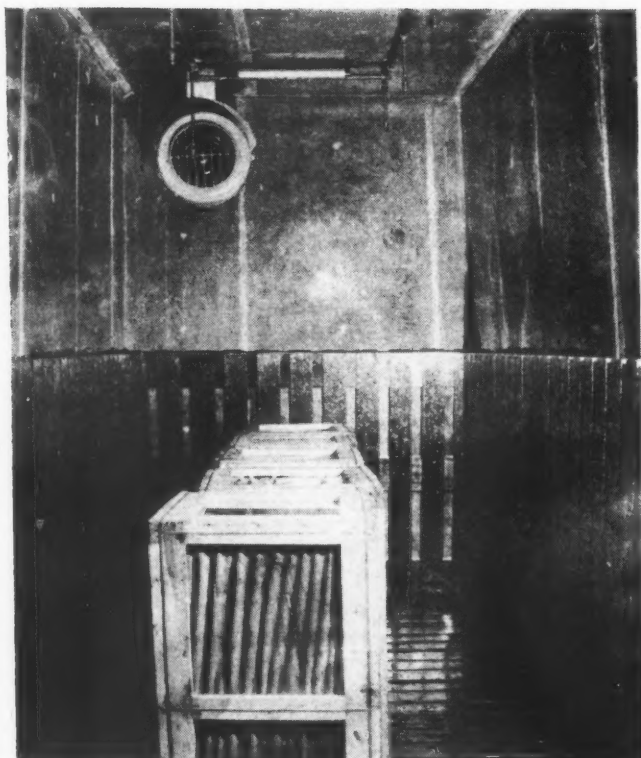
In testing the large liners, three different type boxes were



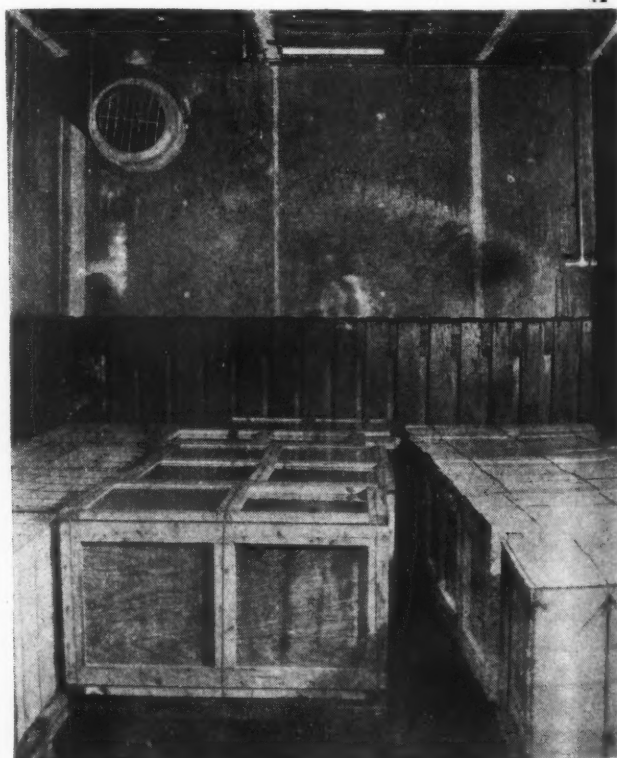
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9—The rough-handling machine; 14-ft. revolving drum.

10—Photo shows the arrangement of the Arctic, Spray and Tropical Rooms. 11—Interior of Arctic Room. 12—Interior of Tropic Room. 13—Interior of Spray Room.



11



12

14

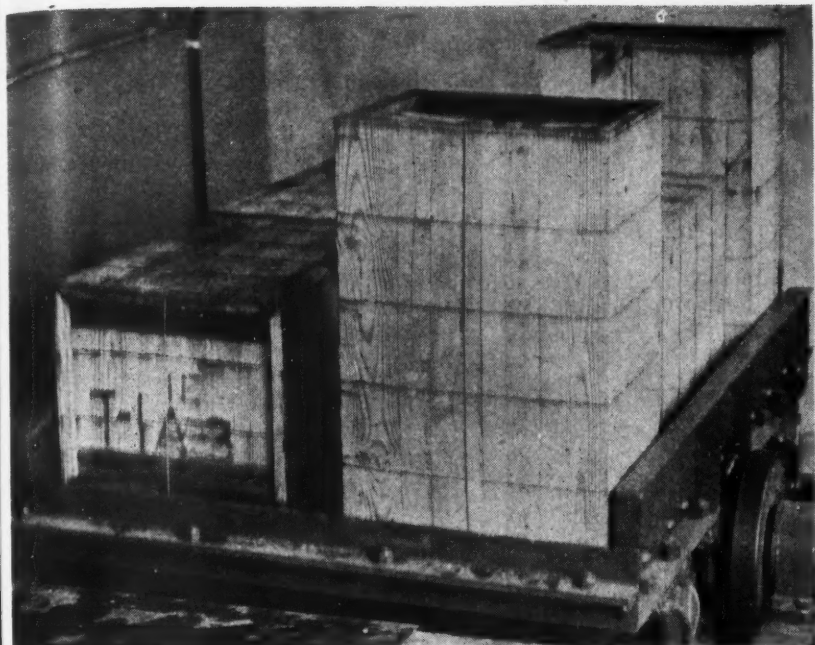
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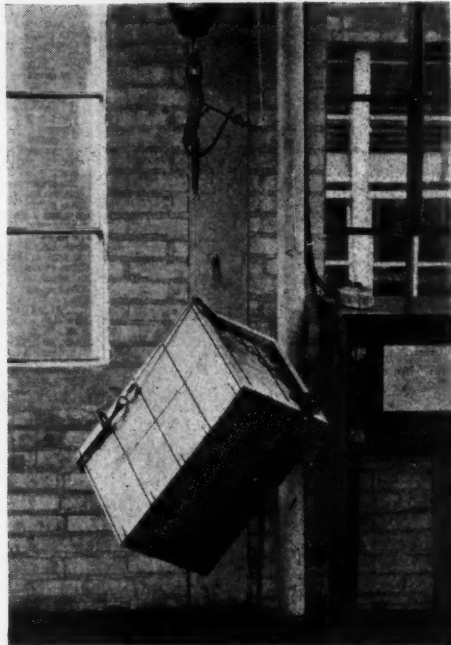
Each  
tears or  
found i  
mandrel

After  
sealed t

13



14



15

14—Photo shows the box vibrator in motion. 15—This is the drop-test apparatus as used on wirebound box.

used: plywood, wirebound and nailed. The boxes weighed 27 lbs., 22.5 lbs. and 44 lbs., respectively. For the small liners fibreboard, wirebound and nailed boxes were used. These boxes weighed 3.6 lbs., 8.1 lbs. and 14.7 lbs., respectively.

**Preparation of liners and boxes for test:** Each box was examined for poorly clinched nails or staples and these defects were corrected when they were found.

Each liner was examined for such defects as holes, scuffs, tears or poorly pasted joints and seams, and was rejected if found imperfect. The perfect liners were placed over a mandrel and were formed to shape and then placed in the box.

After the test load was placed in the box, the case liner was sealed by applying adhesive to the inside top edges of the

liner, pressing the edges together, folding over the sealed edge, applying more adhesive along the fold and pressing the lap flat on top of the load.

**Test apparatus:** The apparatus used in these tests consisted of:

- A. Standard rough-handling machine
- B. Conditioning rooms
  - 1. Arctic
  - 2. Tropical
- C. Drop test
- D. Vibrator
- E. Spray room

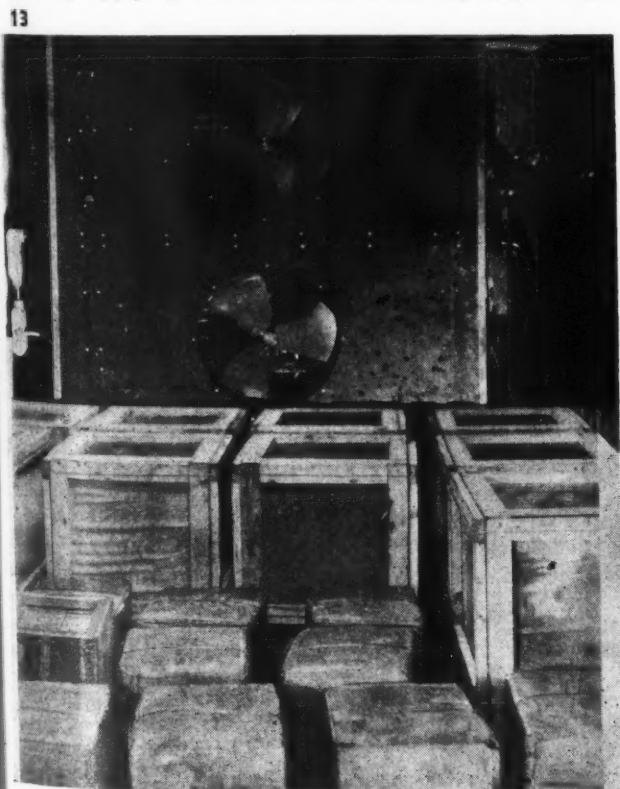
The boxes were not removed for further test until the control box had been at  $-10$  deg. F. for at least two hours. On removal, the boxes were taken out one at a time. The large boxes were given six complete cycles of end-over-end falls on a concrete floor. The small boxes were given eight drops, one on each corner, from a 12-in. height.

Immediately after testing, the boxes were placed in the spray room and again subjected to one hour's spraying. The boxes were opened and a count made of the number of wet pieces. The case liners were removed from the boxes and carefully examined for holes, tears, scuffs and any other damage.

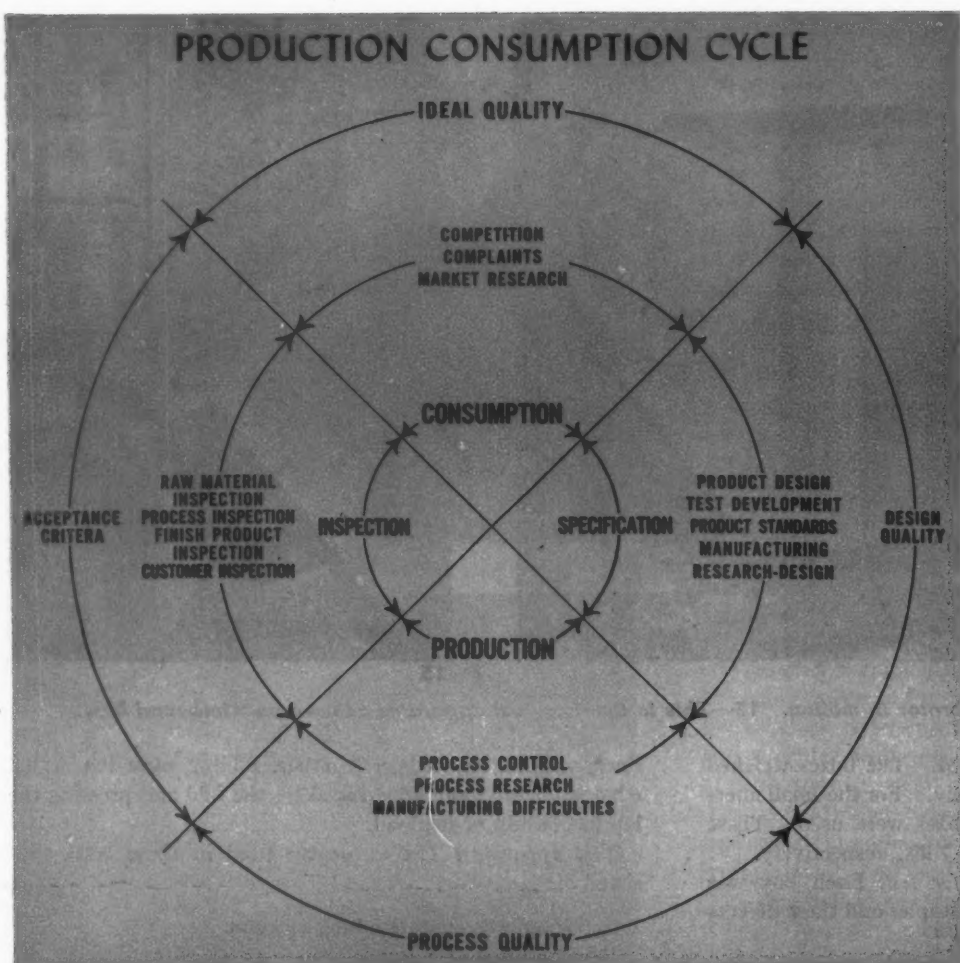
### Tropical tests

Each box after closing was allowed to stand overnight, then given 30 falls in the 14-ft. revolving drum. Ten large and 10 small boxes were placed in the tropical room each day and removed exactly 24 hours later. During this period they were subjected to a temperature of 100 deg. F., relative humidity of 90% and 15 in. of spray water. On removal from the tropical room, the boxes were placed on the vibrator for two hours, then put in the spray room for one hour. The boxes were opened and a count made of the number of wet pieces. The case liners were removed from the boxes and carefully examined for holes, tears, scuffs or other damage.

The results of these tests will be discussed in a later issue of MODERN PACKAGING.



13



1—Specifications of product quality are an integral part of production-consumption cycle.

# Specification buying of packaging materials

by R. A. Wolterding<sup>1</sup> and J. B. Catlin<sup>2</sup>

Industry learned a great deal during this war about the benefits resulting from purchasing packaging materials on good performance specifications. Packaging became more and more an engineering science. The functional use of materials in packages was developed; scientific methods were employed to determine what the packaged product would stand and what it needed protection against. New packaging methods were created to meet the special requirements produced by wartime conditions. Highly skilled technical specialists were employed with the result that a very considerable technology of packaging developed in the space of but a few years.

The effect of all this work changed important parts of the "Art of Packaging" into "Engineering Science." Delivery of war materials damage-free to our fighting fronts all over the world is evidence that these new packaging methods and materials are satisfactory and that the name "Engineering Science" is well earned.

Specification buying is an integral part of sound engineer-

<sup>1</sup> Product Engineer—Kimpak and <sup>2</sup> Assistant Technical Director, Kimberly-Clark Corp., Neenah, Wis.

ing practice. Today there is scarcely a manufacturer in this country engaged directly or indirectly in war work who has not had experience in dealing with product specifications. The attempt to provide an understanding between producer and consumer of the value or utility of goods offered for sale as well as their price or cost began long ago. The trend toward specification selling has been in evidence for years and accelerated sharply during the war. There is every reason to believe that the activities of the government, professional societies and associations, and industry's increased use of applied science will continue this trend postwar.

Fundamentally, satisfactory product specifications attempt to tell both producer and consumer when goods are suitable for their intended use. They deal with the value or utility of materials as distinct from price or cost and make possible the creation of a complete contract between seller and buyer. Good product specifications provide a common quality basis for competitive bidding and make possible price comparisons on a per-unit-of-performance basis. They provide an objective basis for fair dealing in avoiding disputes and settling differences. Efficient specifications tend to replace guess-

work or rule of thumb, promote truthful branding and advertising, protecting at the same time the best interests for both producer and consumer.

Product specifications

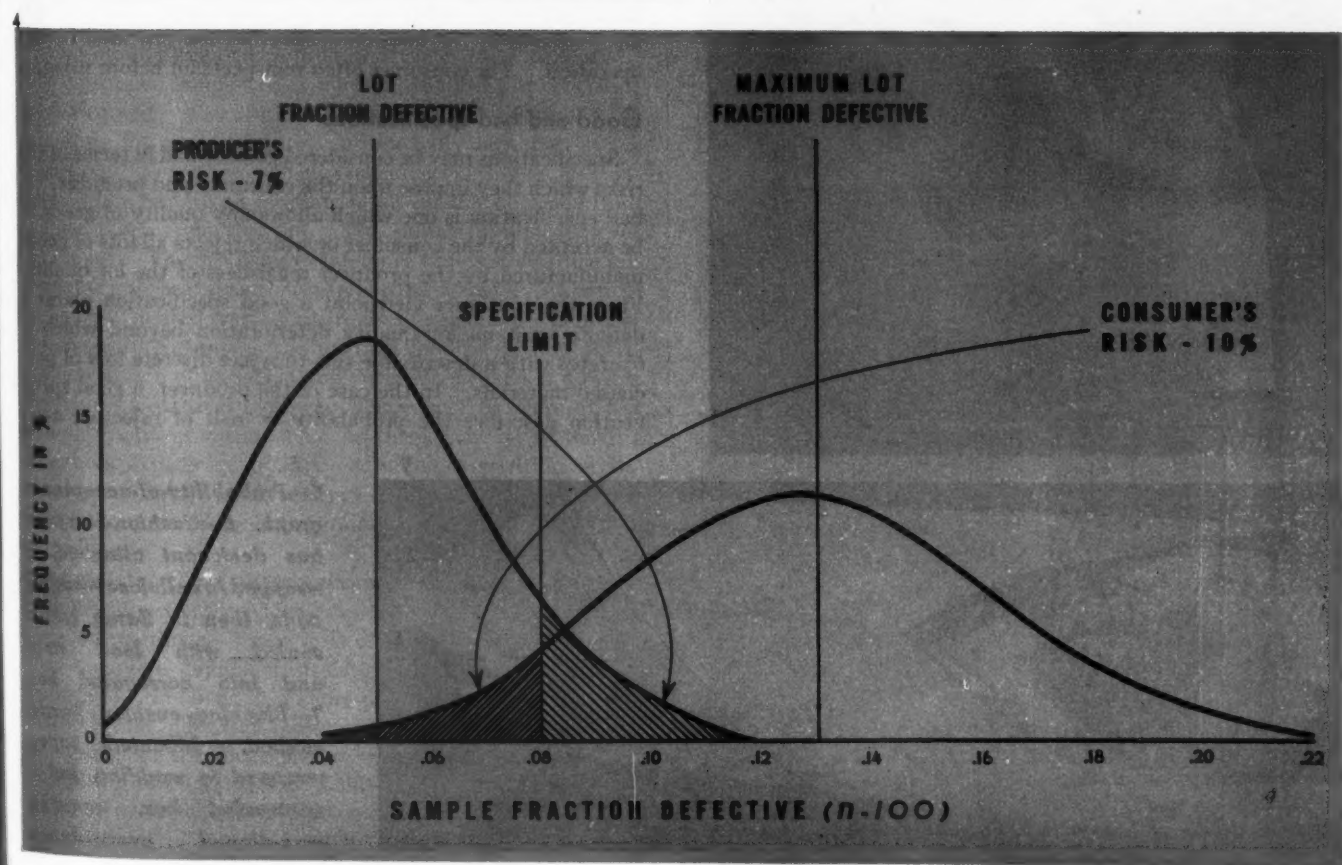
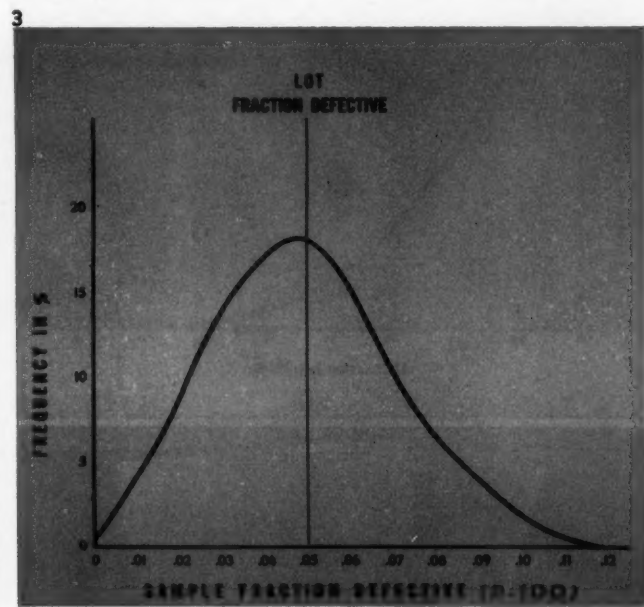
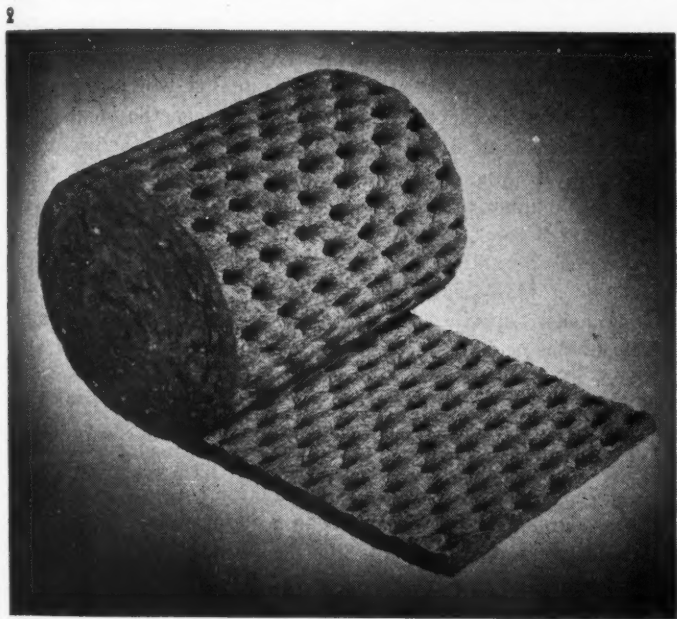
There are two basic types of product specifications: (1) material and (2) performance.

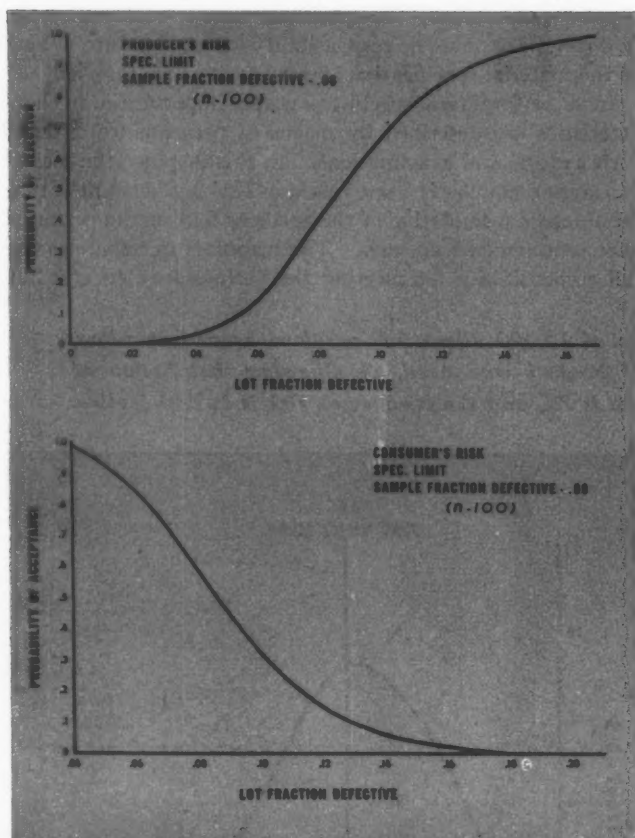
In the material specification, for a specific example, an attempt is made to describe the kind and amount of materials present in the finished product. The manufacturer or

supplier is limited by the specification as to materials used; however, he assumes no responsibility for performance so long as the material specification is met.

In a performance specification the important use characteristics are described by means of performance criteria, such as tests and examinations. In this instance the manufacturer or supplier is free to use any kind and amount of material in the formulation of the goods as long as the performance requirements are met. The manufacturer assumes the full responsibility for meeting the performance criteria but

2—For the example in this article a shipment consisting of 10,000 sheets of cellulose creped wadding, 20 in. by 20 in., 50-ply, dimple embossed, 40-lb. kraft backed was used. 3—Showing distribution of sample fraction defective. 4—The producer's risk for the lot is 7% and the consumer's risk is 10% defective.





assumes no responsibility for their significance in terms of ultimate consumer use.

Most specifications are combinations of material and performance requirement. This situation occurs either because the consumer is unable to supply significant and comprehensive performance tests, or the producer is unwilling to promise to meet all performance tests. As a general rule, product specifications become more efficient in describing the ability of goods to meet the true use requirements as the specification moves away from the use of material criteria toward performance criteria.

### Production-consumption cycle

Specifications of product quality are an integral part of the production-consumption cycle (Fig. 1). Basically there are two portions of a written specification. The first is the design intent, the second the inspection criteria. An efficient specification is based on that design quality which represents the optimum economic compromise between the ideal needs of the consumer and the practical limitations of the producer. It describes the kind and amount of evidence which leads both consumer and producer to the conclusion that a particular lot of goods inspected does or does not meet the design specification and, lastly, states the action to be taken when the lot fails to meet the specification.

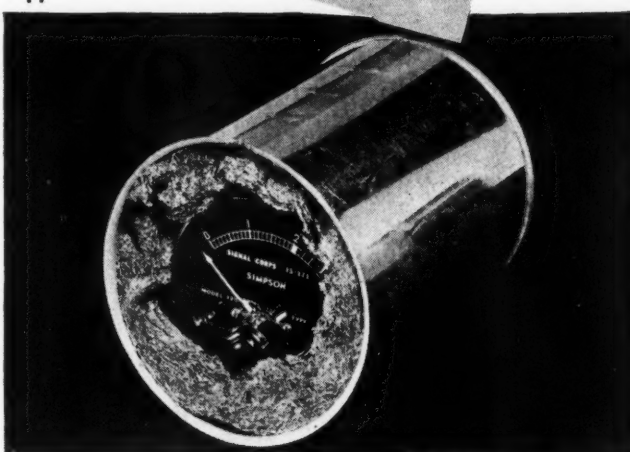
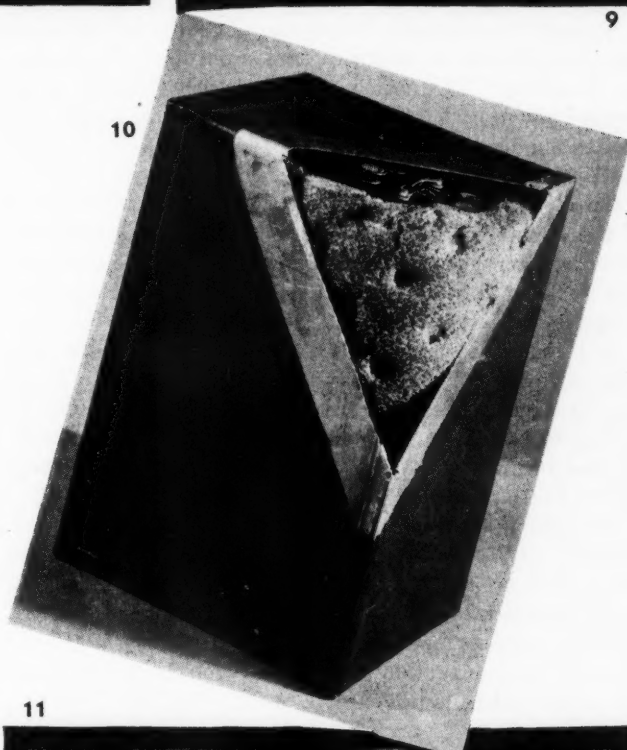
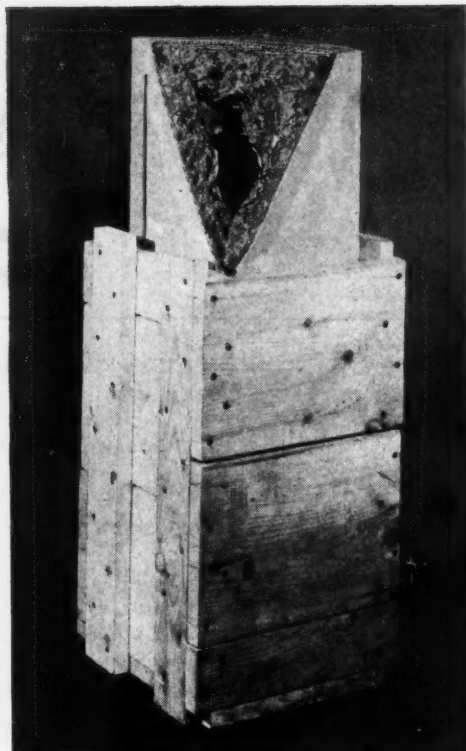
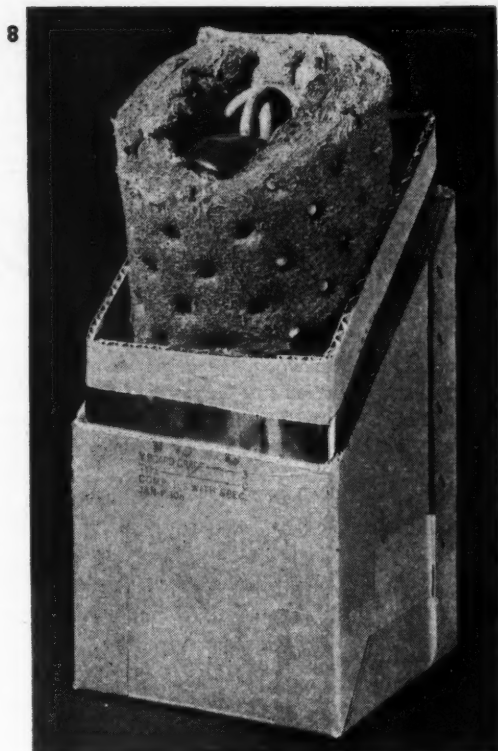
Efficient specifications are subject to constant change. Since the needs of the consumer are seldom constant and since the abilities of the producer vary, it is obvious that the design intent of an efficient specification is constantly changing in order to represent the best economic compromise. Fig. 1 clearly indicates these relationships and the place of efficient specification in the production-consumption cycle. A consumer discovers that he can use a product. To be sure that he receives future lots like the one used, he attempts to describe what he wants in the design specifications. The producer manufactures the next lot and inspects it to be sure that the design quality has, in fact, been met. The acceptance criteria in the inspection specification are used in this operation. The consumer often reinspects lot before using.

### Good and bad specifications

Specifications may be considered good or bad in terms of the risks which they impose upon the consumer and producer. A bad specification is one which allows any quality of goods to be accepted by the consumer or which rejects all lots of goods manufactured by the producer regardless of the lot quality. From the consumer viewpoint a good specification places a definite limit on lot quality deterioration beyond which it operates with a describable risk to reject discrete lots of purchased materials. In the case of the producer, a good specification describes the probability or risk of rejection asso-

5—Probability-of-acceptance graph. 6—Cushion-bag pack has desiccant attached, is wrapped in cellulose wadding pads, then in Saran tubing sealed with lead rings and into corrugated box. 7—Blocking-cushion-barrier method. Mounted, taped, wrapped in wadding, put in corrugated box, wrapped, wax-dipped, overwrapped.

8—Carton-barrier-carton method. Attach desiccant, wrap in cellulose wadding, insert in corrugated box, enclose in sealed metal envelope, insert in outer corrugated box, label. 9—Method II cushion-carton pack. Cushion bottle with cellulose pad, insert in corrugated box, then into wood box. 10—Sealed metal barrier method. Clean part, seal breather openings, lacquer-spray, wrap in cellulose wadding, add desiccant, place in metal barrier, solder shut, paint metal surfaces. 11—Sanitary can method. Cushion part in wadding, insert in can and paint.



ciated with any lot quality or process average quality. Practical business experience with efficient specifications has shown that acceptance criteria with a producer risk of about 5% and a consumer risk of about 10% provide an effective working basis for specification selling. The use of 5% and 10% describes the chances in the long run of having good material rejected or poor material accepted.

### Statistical methods

Statistical concepts and methods play a very important role in the development and use of efficient specifications. Product quality even when produced under ideal or statistically controlled conditions is variable and must be described by a frequency distribution. Most practical methods for estimating lot quality require substantially less than 100% inspection. Therefore, setting specification limits and inspecting lots require an estimate of lot quality obtained from samples taken from that lot. The sample is almost never like the lot. The problems of inference imposed by these unavoidable practical situations can best be solved by statistical methods. Quality variation from a consumer's point of view is as important as the average quality characteristic. The description of variation and variation systems is a prime function of statistical method. There may be more or less random variation within a lot or there may be systematic differences in average quality characteristics within or between lots. In all cases, estimates of the kind and amount of variation present are best obtained by the use of statistical techniques.

Some of the ideas already discussed are demonstrated in the following example which employs certain statistical concepts and methods. Since it is obviously impossible to include complete details of statistical method as applied to specification problems in a short paper, the example merely indicates that powerful tools facilitating development and use of efficient specifications are available. A selected bibliography is given at the end of this article for information on statistical methods in specification and inspection.

A shipment of cellulose creped (Continued on page 166)

# QUESTIONS and

# Answers



*This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.*

## Canadian overseas packaging

There have been several inquiries in the last few weeks from Canadian sources, inquiring about water-vapor transmission testing apparatus and procedures. For the benefit of other Canadian concerns who are interested in this information, the following appears to be the essential information concerning the existing United States specifications covering water-vapor transmission:

Several of the Canadian letters have inquired for additional reprints of the article which appeared in MODERN PACKAGING in November 1942 which described the General Foods method of measuring transmission. There are available a limited number of reprints of this article, as well as a detailed description of the testing procedure.

For more detailed information concerning the procurement of the apparatus described in this reprint, the questioners have been referred to the manufacturer of this equipment. The Package Materials Laboratories, Inc., 12-28 Broadway, Long Island City, New York.

Additional information concerning water-vapor permeability methods may be found in joint Army-Navy Air Corps Specification ANC-67a, a copy of which can be obtained by writing to: District Supervisor, A.A.F. Matériel Command, Central Procurement Dist., W. Warren Avenue and Lonyo Street, Detroit 32, Michigan.

A somewhat later specification being used by the Ordnance Department is AXS-1322, a copy of which can be obtained from Chief of Ordnance, Army Service Forces, Washington, D. C., attention: Specification Department.

This department will be pleased to obtain any additional information or answer any specific questions from any of our Canadian readers on this subject.

## Moisture-vaporproofing postwar products

**QUESTION:** *We are considering as a postwar product a type of paper which will require a high moisture-vaporproof package or wrapper with very dry conditions inside. This paper will be in short rolls on small diameter cores. It is our thinking that ordinary wax or asphalted paper will not be suitable for our requirements, but that we would require something much more moistureproof and possibly the inclusion within the package of some agent for absorbing moisture.*

**ANSWER:** Your description of your new paper product would indicate that you should use the so-called Method II packaging. This involves a water-vapor barrier having a transmission rate of less than 0.25 gram per hundred sq. in.

at 100 deg. F. and the inclusion within the barrier of silica gel as a dehydrating agent. A great variety of war matériel is being shipped this way and results from the field have indicated that such a packaging method can be expected to deliver its contents satisfactorily even after long storage under very adverse humidity and temperature conditions. The particular package construction, water-vapor permeability rating of the barrier and the quantity of dehydrating agent required you will have to establish, based on some estimate of time of preservation required, the sensitivity of your product to water vapor and the handling and storage conditions.

Currently, there are a large number of types of moisture-vapor resisting barriers in use, varying from transparent plastic films to opaque metallic foil combinations with the latter having transmission rates approaching zero.

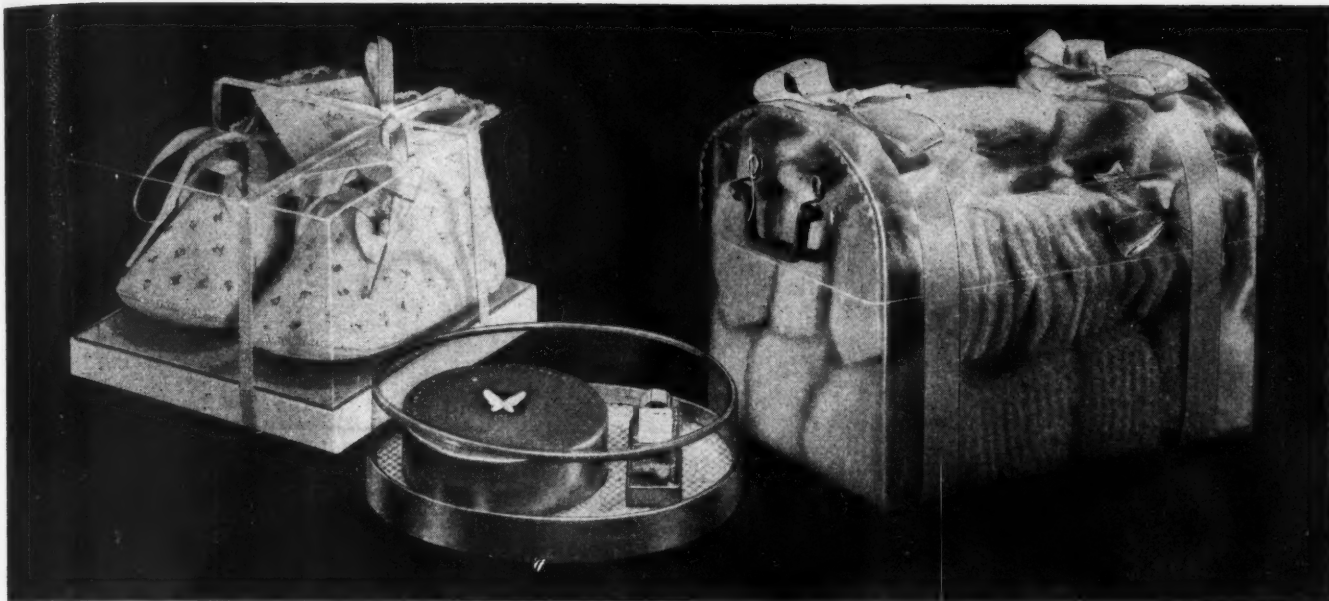
It is suggested that you get in contact with the Forest Products Laboratory at Madison, Wis., concerning names of manufacturers of dehydrating agents, as well as suppliers of moistureproof materials and packages. This Laboratory is in your general neighborhood and has had a great deal of experience in Method II packaging.

## Threading of metal tubes

**QUESTION:** *In the manufacture of metal collapsible tubes are the threads for the closure made at the same time the body is formed or is it a separate and distinct operation performed after the body has been made?*

**ANSWER:** Making the threads for the closure is a separate and distinct operation from the forming of the tube. In some instances threading is combined with the trimming operation and done on the same machine. One company has an exclusive patented process whereby tubes are trimmed, threaded and base coating applied by the same machine. In certain instances, however, there may be a break between the trimming and threading operation. So far as is known, there is no successful equipment for making the thread at the same time the tube is extruded. This was tried years ago and abandoned because it was not practical. Attachments to the tube-forming machine for making the threads would slow down operation unnecessarily, when trimming must be done anyway and threading can be combined with the trimming operation.

In order to fit the neck of the tubes to closures, the threading machine is usually adjusted to each batch of caps that are received by the tube maker from the various closure manufacturers so that the fit of the cap may be controlled to close tolerances.



the package  
that begs  
to be bought . . .

... in crystal clear Eastman Acetate containers,  
postwar products will literally sell on sight

**I**N the postwar world, more and more products will be packaged in "individual showcases"... transparent, protective containers of Eastman Acetate Sheet.

Safe, because no hand can touch them—sales-building because "eye-appeal" is high—products in these crystal cases are protected from dust, dirt, and profit-eating shopwear. Because merchandise is displayed *right out in the open*, salespeople are spared the time-wasting operations of opening and closing boxes, of constantly digging into shelves and stockpiles.

Eastman Acetate Sheet is "on military duty" today. But this superior packaging material will be ready for the brisk postwar trade. Plan now to show your products in merchandising's "Sunday best."

**KODAK PACKAGING LABORATORY** is happy to help you or your designer . . . with any packaging problem. For appointment, or detailed information, address: Cellulose Products Sales Division, Eastman Kodak Company, Rochester 4, N. Y.

**YOURS TO COMMAND:** No matter what your manufacturing process, Eastman Acetate Sheet fits the picture. It can be crimped, sewed, or stapled, folded, pleated, molded, drawn, and takes printing inks without wrinkling.

**THREE TYPES** are produced in sheets or rolls:

Clear Transparent—Matte Translucent—Colored Translucent.

**Eastman Acetate Sheet** *Attracts...Protects...Sells*



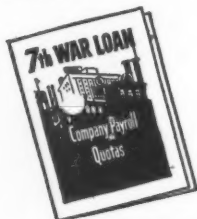
**IT'S UP TO YOU  
TO HELP MAKE  
2=3 WITH...**

A job for seasoned executives—this 7th War Loan! Especially when we've got to make 2 war loans total just about as much as all 3 in 1944! Putting this over demands the combined and *continued* efforts of the "No. 1" men of American industry.

This means marshaling your plant drive to make every payday—from now 'til June 30th—do its share toward the success of the 7th. Directing the drive is not enough. It's equally important to check to see that your directions are being carried out—intelligently!

**For example, has every employee had:**

- 1 an opportunity to see the new Treasury film, "Mr. and Mrs. America"?
- 2 a copy of "How To Get There," the new Finance Division booklet?
- 3 a new bond-holding envelope with explanation of its convenience?
- 4 7th War Loan posters prominently displayed in his or her department?
- 5 information on the department quota—and an urgent personal solicitation to do his or her share?



If you haven't a copy of this important booklet, "7th War Loan Company Quotas," get in touch immediately with your local War Finance Chairman.



Remember, meeting—and beating—your highest-yet 7th War Loan quota is a task calling for "No. 1" executive ability. Your full cooperation is needed to make a fine showing in the 7th! Do not hesitate to ask your local War Finance Chairman for any desired aid. It will be gladly and promptly given.

*The Treasury Department acknowledges with appreciation the publication of this message by*

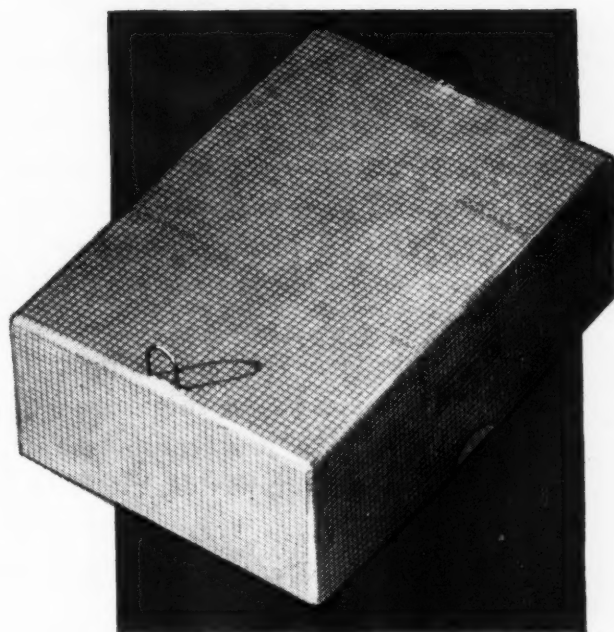
**MODERN PACKAGING**

★ This is an official U. S. Treasury advertisement prepared under the auspices of Treasury Department and War Advertising Council ★



## SIGHT FOR SOARING EYES!

... that those that fly may fight again, that they may see... before they are seen, a prominent manufacturer of optical equipment packs vital flight goggles in Mason MAILMASTERS for shipment overseas. This in addition to thousands of precision-ground lens blanks, contact lenses and other fragile and costly optical equipment designed for use both here and overseas... all carried swiftly, economically and safely in sturdy, conveniently sized Mason MAILMASTERS.



The patented Mason "Mailmaster." Light and unbelievably strong, with positive wire closure.

**THE MASON BOX COMPANY**

**WANT TROUBLE-FREE CONTAINERS  
FOR YOUR PRODUCTS ?  
THEN PACK 'EM  
IN CANS !**

**Cans don't break . . . they seal out  
air and light . . . are economical  
to ship, store . . . easy to display!**

● "I've been a manufacturer for years. So I say—and retailers and consumers will bear me out—that for packaging products, cans are plenty *trouble-free*!

"Here's what I mean. Cans are tough. They don't break, crack, split, or tear. They're light in weight and compact... economical to pack and ship... easy to handle, store, display. And cans shut out air and light, prevent product deterioration.

"For attractive display, cans are tops. Their smart, colorful labels (which can be lithographed right on the cans) catch customers' eyes, make brand recognition easy, help sell goods.

"That's why I say cans are so *trouble-free*. And that's why wholesalers, retailers and consumers will join me in a lusty cheer when steel-and-tin cans are generally available for civilian goods again!"

#### **NATIONAL ADS TELL STORY OF CANS!**

● This month more than 35,000,000 printed messages are appearing in 8 national magazines and in Sunday supplements throughout the country. These big full-page ads in full color are telling consumers everywhere why no other container combines as many advantages as the steel-and-tin can!

**CAN MANUFACTURERS' INSTITUTE, INC., NEW YORK**

**NO OTHER CONTAINER PROTECTS**



*Important to You!*

**5 BIG REASONS WHY CONSUMERS  
PREFER GOODS IN CANS**

1. Cans don't break, crack, split, tear.
2. Cans protect quality of goods.
3. Cans prevent air- and light-spoilage.
4. Cans are so convenient.
5. . . . And so economical.



**LIKE  THE CAN**



# WASHINGTON REVIEW

R. L. Van Boskirk, Washington Editor

## ● Reconversion Talk Still "Under Wraps"

—As this is written, the Army and Navy hadn't yet broken their self-imposed silence as to what is to happen following V-E Day. Obviously the Armed Forces are embarrassed over last Fall, when the fall of Germany was expected momentarily, when plants in this country were given detailed instructions as to how to terminate war contracts and when sharp cutbacks were anticipated.

However, there is postwar planning going on within "the military." Their hands and tongues are still tied by restrictions, insofar as discussing their plans with the "outside" is concerned, but in the high places there is consideration of cutbacks and reconversion.

Civilian government agencies, however, are facing the end of the European War more realistically, or so it would seem to an outsider looking in. The announcement in April that WPB had organized a "Committee on Period One" is indication that an effort at orderly, but not-too-hasty demobilization of industry is being given thorough consideration. Primary function of the committee will be to coordinate all government reconversion plans—Army, Navy and other.

While the machinery and the raw materials of the packaging industry that are in the war will continue to be needed in the Pacific War, there is reason to hope that within, perhaps, 90 days after V-E Day there may be a lifting of some of the government controls. It is not felt likely that the shipment of military supplies—from food to bazookas—to the Armies in the Pacific, even after redeployment, will continue to utilize all the packaging materials now being used in shipments to Europe and the Pacific. However, it will take time to redeploy troops and matériel from Europe to the Pacific and the redeployment in itself will require repackaging of many of the supplies now either in Europe or en route there.

Just where the first easing of the controls will be felt is anybody's guess. It is certain that as long as the Japanese war continues there will be continued shortages of textiles, lumber and other forest products (including, of course, paper) and some metals, such as tin and lead, and that government controls will remain on these items.

## ● Decision on Boxboard Allocations Delayed

—Following meetings here in April of the Container Board and Fibre Box Industry, the Boxboard Industry and the Folding and Set-up Box Industry Advisory Committees, it has been decided that the correct approach to the problem is a meeting with the newly formed joint Army-Navy Packaging Committee for formulation of new allocation principles.

Accordingly, a subcommittee was named, including J. J. Brossard, Container Corp. of America; M. F. Fessenden, Ace Carton Corp.; E. P. Rus, Wayne Paper Box and Package Corp. and R. E. Rutledge, Sutherland Paper, to confer with the Army-Navy Group and report back to a meeting May 16 of the folding and set-up box group and the boxboard group, together with WPB representatives, on possible conservation measures which may be effected in use of boxboard.

At the meeting it was reported that demands have risen in greater ration than boxboard production, with the result (which everyone knows) that second quarter allocations have been cut and with shipping containers getting a bigger share at the expense of folding and set-up boxes.

Incidentally, the formation of the Joint Army-Navy Packaging Board will, it is expected, reduce the present number of specifications and, at the same time, iron out a lot of difficulties packaging people have been experiencing with the two services. It is an unprecedented move toward cooperation. More on this later.

## ● Adequate Tin-Plate Assured by WFA

—Despite gloomy forecasts by canning officials, War Food Administration has assured canners sufficient tin-plate for seasonal packs. A new regulation, now obtainable at all WPB regional offices, should be studied by all food processors and closely checked with previous order.

The quotas for certain items have been reduced—items not shipped overseas in great quantity. Earliest relaxation of restrictions can't be expected before third quarter—if then.

● **Essential**—Workers in *all* fields making containers have been declared essential by the WPB. Previously, production only of containers for products on the WMC essential list was classified as es-

sential. This new action follows close on the heels of the recent announcement that War Food Administration has been authorized by the Selective Service System to certify requests for occupational deferment of men under 30 employed in most of the food industries of the nation, which includes canning, freezing, preserving, drying and packing of fruits and vegetables, as well as the processing of other food products.

## ● Pro-coating Program Expanded

—Processors of Army fruits and vegetables have been called upon for a greatly enlarged pro-coating program to assure that foods reaching troops in the South Pacific and other war areas, will arrive in good shape. Inaugurated in 1944 with some 40 million cases on the yearly schedule, the 1945 job calls for about 90 million cases, more than two-thirds of it vegetables. The Quartermaster Corps pays canners for the cost of installation of the pro-coating machinery.

## ● WPB Officials Call for Re-Use

—Wide re-use of packages and containers, by both civilian and military, is a theme whose volume is increasing as production of goods continues at its current "win-the-war" level. In this connection, there are some who believe that one way to force maximum re-use would be to reduce quotas in some fields of packaging materials for the third quarter and provide for packaging of a certain portion of a producer's output in used containers. No specific suggestions as to how the used containers should be channeled back to packers have been made, although in the case of steel drums and similar containers, a reconditioning industry already exists which will provide the channel.

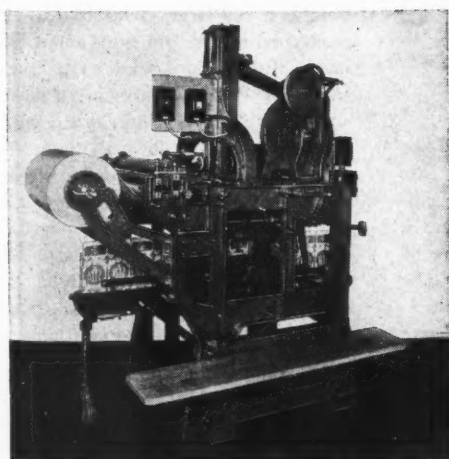
## ● May-June Containerboard Requirements Upped

—Just how the containerboard industry will meet the increased requirements for the armed forces in May and June is not set forth in the WPB instructions to a joint meeting of the containerboard and fibrebox industry held here in April. The April required production was 115,741 tons, which, the WPB said, must be increased in May and June.

And here's another note on V-E Day. The WPB told the industry representa-



**Is Your Packaging Problem  
Similar To Any Of These?**



LARGE LINING MACHINE — cuts paper from a roll, forms the bag liner, seals the seams (glue or heat) and inserts liner in carton.

**If It Is** — call on Pneumatic to make an analysis of your packaging production requirements. We shall be glad to submit recommendations based on a background of knowledge and experience accumulated over nearly fifty years.

There is good reason why Pneumatic machinery is being used to package the products illustrated and hundreds of others. The efficiency of Pneumatic Pre-War Packaging Equipment speaks for itself. Because of an alert and active Engineering Research Department, you can look for even greater performance records from Pneumatic Packaging Machinery in days to come.

It will pay you to get the facts *now* about Pneumatic's "Lower Cost Per Container" packaging equipment for any packaging problem you may have.— Pneumatic Scale Corporation, Ltd., 82 Newport Ave., North Quincy 71, Massachusetts. Branch Offices: New York 6, Chicago 1, San Francisco 11, Los Angeles 13.

**Complete Packaging Machinery Hook-Ups  
for:** CARTON FEEDING, SEALING, TUCKING, LINING,  
WEIGHING, FILLING, AND WRAPPING.

**PNEUMATIC**  
PACKAGING & BOTTLING MACHINERY

tives that the tonnage of "V" boxes produced for the military services for overseas use at the rate of about 100,000 tons per month is not expected to decrease in any quantity following V-E day.

At the same time, military and Foreign Economic Administration requirements for fibre shipping containers, including V boxes, have increased to such an extent that WPB may have to ask boxboard manufacturers to make some liner board for use in shipping containers.

#### ● New Federal Drum Specification—

Copies of the new federal drum specification (RR-D-729) became available April 15 at the Office of the Superintendent of Documents, Government Printing Office. The new spec will enable steel drum manufacturers to concentrate on production of a single design of 55-gal. container for all military and other federal users; will eliminate a multiplicity of specs; may be one step in the direction of easing government demands on industry.

#### ● Liquid-Tight Paper Containers Likely to Be in Short Supply—

Unless the Army finds materials and facilities not now apparent, its requirements for some 600,000,000 waxed paper cartons for delivering ice cream to American fighting men all over the world will cause a severe strain on present facilities and pulp resources and may result in a further tightening of recently strengthened restrictions on use of hot drink cups, cold drink cups, flat bottom dishes and other liquid-tight containers, such as milk containers. However, WPB has been called into the picture; may come up with an answer.

#### ● Pulp-Paper Industry Committee Holds First Meeting—

The newly formed over-all advisory committee for the pulp and paper industry held its first meeting in Washington with the OPA April 18, to discuss general problems of the entire industry under price control, other government curbs. The new industry-wide committee does not replace any of the 26 industry advisory committees already in existence, representing manufacturers of specific products in the pulp and paper industry. It was formed at the suggestion of the industry (through the American Pulp and Paper Assn.) for the purpose of having one over-all industry group to consult on industry-wide matters.

#### ● How Did "Perfect Shipping" Campaign Work Out?—

A report is expected before long on the nation-wide "perfect shipping" campaign conducted during April by the National Assn. of Shippers Advisory Boards in cooperation with the railroads, traffic organizations, chambers of commerce and various government agencies. In cooperation with the campaign, the monthly publication of the Bureau of Foreign and Domestic Commerce, "Do-

mestic Commerce," pointed out last month that 60 million dollars were paid out in 1944 in settlement of shipping loss and damage claims—36% higher than in the preceding year, adding that this figure "demonstrates the need for careful packaging of all goods." The article continues: "So necessary are adequate packing and shipping to our industrial economy that our wits and resourcefulness are challenged to reduce this tremendous loss to a minimum. More than ever before we should realize that it is the end use of the goods that counts."

Among the startling examples reported of damage to export shipments resulting from careless or improper packing was the complaint received by the Commerce Department asserting that since August 1943, when the last lot arrived packed in tins with soldered joints, no shipments of chloride of magnesia or calcined magnesite had been received in good condition. Some shipments were so packed that all contents were found to be spoiled.

● No Action Yet—To date there's no report of any action on the objections raised by the grocers and variety bag industry to the proposal to transfer administration of their limitation order (L-261) from WPB's paper division to its containers division. WPB says the protest is still "under consideration."

● Must Keep Written Records—Packers using fibreboard shipping containers who do not have "adequate" written records of lawful usage of the containers in 1944 and 1945 may not accept delivery of new containers for use in packing products listed in Schedule III of Limitation Order L-317 until such time as WPB establishes a quota for him. If a packer hasn't kept written records, his only recourse is a letter of appeal to the containers division, WPB, asking for a quota. The drastic step was taken in view of continuing shortages.

● Lead Situation Due for Study—A further review of the lead situation, particularly as it applies to the use of collapsible tubes, has been promised for early May by the WPB, following its revision of Conservation Order M-115 to shorten the list of users eligible for tubes and simultaneously restricting those permitted the use of tubes to no more than a third of their second-quarter quota during April. It was said that after its review of the situation, WPB might redraft restrictions.

● Army Experimenting with Non-Wax-Dipped K Rations—The Army Quartermaster Corps is running a test in the South Pacific with "K" rations wrapped in aluminum foil, laminated with heavy kraft. Some of the experimental rations were sent out without wax dipping which has characterized "K's" which have been going by the millions to all war fronts. If

rations so packed stand up as well as the wax-dipped ones, the requirement for dipping may be eliminated from the specs—if sufficient foil is made available.

● LOOK FOR—A revision before too long of Federal Specification UUP-268 (paper, kraft, wrapping) to make some provision for porosity. At a recent meeting of the Industry Advisory Committee with WPB, converters held forth loud and long on needs for Northern kraft—in short supply. Result of the meeting was that all went home with instructions to pare requirements of Northern; use Southern kraft wherever possible, particularly in applications where one thickness of kraft is impregnated with asphalt anyway and where bleeding is immaterial.

● LOOK FOR—Further revision of Conservation Order M-81 (tinplate and terneplate), further cutting their use for non-food purposes so that armed forces will get more for food. A recent revision cutting use of plated cans for paint products, motor oils. Insecticides and fungicides may be packed in plated cans up to 100% of 1941 use—another Army "must." A long list of products which may be packed in cans under the revision may be shortened by later revision. In this connection, it is appropriate to note that the recovery of tin from tin-plate scrap is decreasing sharply, because of the thinner plate. The president of Vulcan Detinning Co. reported to stockholders recently that a large percentage of scrap now carries but 11 lbs. recoverable tin per ton, compared with a pre-war average of about 35 lbs. Also, he says, "Unfortunately, the salvage has been dwindling rapidly."

● LOOK FOR—An outbreak of "paper holidays" in large cities of the country, patterned on the one conducted in Washington during April. They are to be undertaken by WPB working with local sponsors enlisting the support of the public and merchants in an effort to have all retail purchases carried unwrapped, except those requiring wrapping for sanitary or protective purposes. In advance of actual opening of "holiday" in Washington (to continue for the duration), WPB field workers contacted some 6,000 retail merchants, obtaining pledges of cooperation.

● BRIEFLY—Leo T. Crowley, Foreign Economic Administrator, says the largest single item brought into this country by air in 1944 was tin. . . . Folding boxes utilized 469,133,000 tons of the 999,429,000 tons of paperboard (other than containerboard) used in the U. S. during the third quarter of 1944, Commerce Department reports. This was more than 50,000 tons above the use for folding boxes in first quarter. . . . WPB reports that the supply situation in plastics for closures showed improvement in March and April



*For Emergencies*

**LIFE-RAFT KNIVES "AT THE READY"**

**M**ANY a U. S. fighting man has found his best friend to be a good stout knife, especially on a life-raft. That is why life-rafts are not only equipped with knives, but each knife is provided with a leather sheath, so it can be worn on the belt—"at the ready" for instant use.

Ordinarily, seawater would soon have the sheaths useless because of shrinkage and stiffness. But this does not happen, for the sheaths are made impervious to water through the application of Triple-Action Viscol, manufactured by The Viscol Company, Stamford, Conn.

This firm makes sure their product will always be "at the ready," too—they give it the sure protection of Crown Can packaging.



★ ★ ★ **CROWN CAN** ★ ★ ★

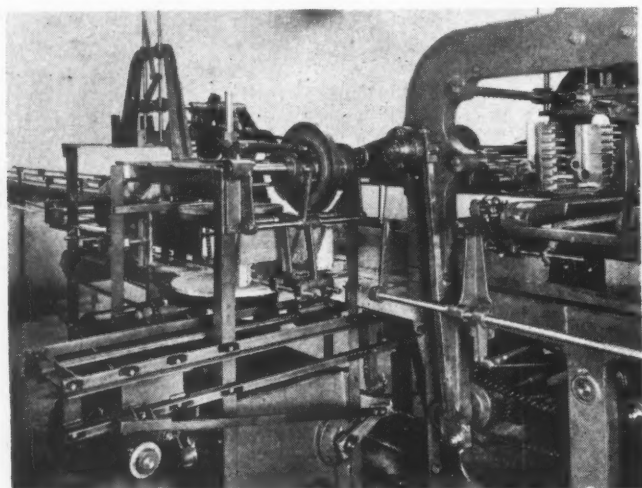
INDEPENDENT AND HELPFUL

CROWN CAN COMPANY • NEW YORK • PHILADELPHIA • DIVISION OF CROWN CORK AND SEAL COMPANY, BALTIMORE, MARYLAND

# Equipment and Materials

## AUTOMATIC ASSEMBLING AND BUNDLING UNIT

Package Machinery Co., Springfield, Mass., has developed an assembling machine which stacks packed cartons in tiers—one, two or three high, and two, three or more in width—and then delivers them into its bundling machine for wrapping and sealing. The two machines, combined into a single unit, as shown, take



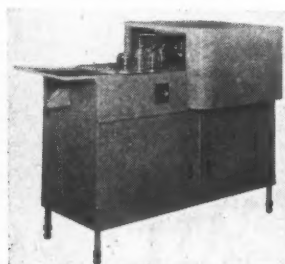
the cartons from a packing machine and stack them, prior to wrapping; thus eliminating the hand operation.

The new unit includes a feed conveyor, adjustable in width for cartons of varying size, which extends to the left for a little more than 8 ft. This conveyor delivers the cartons beneath a plunger which pushes a desired number down into a receiving magazine until the required multiple tiers have been assembled. A second plunger then pushes the stack from the magazine to a turntable which rotates to place the stack for widthwise or lengthwise wrapping. A third plunger then pushes the stack into the wrapping machine for final delivery to the right. The combination machine will handle 8 to 24 completed wrappings per minute. Maximum size of the assembled cartons, based on the size of the turntable, is 20 in. by 13 $\frac{1}{4}$  in. by 9 $\frac{3}{4}$  in. This turntable, consisting of two round wooden discs, one on top and one on the bottom, holds the bundle intact, if it is to be turned around 90 deg.

## NEW RUBBER-LIKE PLASTIC

Some possible packaging uses may be in store for "Styraloy," new chemical compound developed by The Dow Chemical Co., Midland, Mich., in unbreakable cigarette cases and moisture-resistant containers.

## UNSCRAMBLING TABLE



Shown in the illustration is the new Styl-O-Matic infeed and unscrambling table, operated by one attendant, to unload from 60 to 240 or more bottles, jars, cans or containers per minute from cartons onto a conveyor, which discharges them to the filling machine in a single line.

This high capacity is possible

due to the different speeds of the conveyor belts. The operator places the opened case face down onto the tilting table, and when moved forward the table levels off and the carton is lifted off

the containers which then move onto the conveyor belts. The belts which move at three different speeds—the fastest on the discharge side, the center at one-half speed, and the offside at one-quarter speed—cause the bottles to follow in single file on double V-belts which prevent tipping over. Available in right- or left-hand discharge models, Island Equipment Corp., N. Y. C.

## FROZEN FOOD CARTONING MACHINE

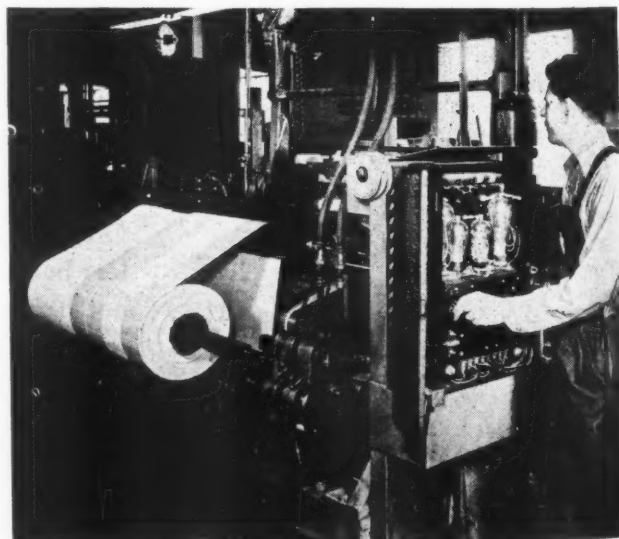
A frozen food packaging machine which automatically feeds, opens, fills and closes the carton at the rate of 75 to 80 12-oz. vegetable packages per minute, was demonstrated recently in Seattle, Wash., and San Francisco, Calif. The machine is a joint development of Marathon Corp., Menasha, Wis., manufacturers of frozen food containers and packaging materials, and Food Machinery Corp., Hoopston, Ill., manufacturers of canning and food processing equipment. Commercial production of this machine, however, has not yet gotten under way, and meanwhile improvements will continue to be made in the pilot model, the companies stated.

## ADJUSTABLE CARTON SEALER

Container Equipment Corp., Newark, N. J., has announced a fully automatic adjustable carton sealing machine. The carton feeder automatically inserts one carton into each carton pusher compartment of the sealing machine—variable speed control adjusts the machine speed to actual requirements. This feature eliminates all handling of filled cartons and no operators are required. The feeder and sealing machine are easily and quickly adjustable for a wide variety of carton sizes.

## ELECTRONIC POSITIONING INSURES PRECISION CUTTING

Printed paper labels are cut accurately and without waste while traveling at the rate of 1000 ft. a minute due to Westinghouse photo-electric control which keeps the feed roll centered within plus or minus  $\frac{1}{32}$  in. relative to the slitting knives. Precision



cutting, in turn, insures that the printed matter on the label will be centered when placed on the final product. In operation, a phototube scans a register line printed on the roll of paper. Variations from proper alignment produce impulses which in turn correct the position of the feed roll. Without electronic control, the effect of changes in temperature and humidity on the roll of paper often results in  $\frac{1}{4}$ -in. total variation.



## Kept dry . . . around the world



The wrapped part, with its silica gel and protective wadding, is placed within a U.S.E. moisture-vapor-proof heat sealing bag.



Air is pressed out of the bag, which is then heat sealed — ready to protect its contents anywhere in the world. Photographs taken at the plant of The F. W. Sickles Co., Chicopee, Mass.

# U.S.E.

PROTECTIVE PACKAGING

Squatting down in the rank undergrowth of a steaming jungle, a Signal Corpsman tears the top off a carton, removes an envelope and opens it, takes out a radio frequency choke . . . "Thank God, it's dry!"

It had to be dry to be of any use to him. It had to be kept dry in its long journey from the U.S.A. to its place in the war zone. That's why The F. W. Sickles Company packs its chokes, inductors, transformers, condensers . . . in U.S.E. moisture-vapor-proof heat sealing bags.

U.S.E. Protective Packaging has reduced the hazards of time and distance by protecting everything from minute electronic coils to complete machines in scientifically designed wraps that resist moisture . . . vapor . . . salt spray . . . immersion . . . oil . . . grease . . .

Proved in war, U.S.E. Protective Packaging is ready to take its place in your plans for peace.

UNITED STATES ENVELOPE COMPANY

*14 Divisions from Coast to Coast*

KELLOGG CONTAINER

DIVISION

SPRINGFIELD  
MASS.

# Plants and People



E. A. Throckmorton

Edgerton A. Throckmorton was elected a vice-president of the **Container Corp. of America** at a meeting of the board of directors on April 2. Other officers elected at the same meeting were: President, **Walter P. Paepcke**; vice-presidents, **J. J. Brossard**, **W. M. Dixon**, **I. C. Keller** and **J. V. Spachner**; secretary-treasurer, **E. A. Wagonseller**; comptroller, **C. M. Blumenschein**; assistant treasurers, **C. Madsen** and **A. Papke**; assistant secretary, **H. J. Greven**; assistant comptroller, **E. J. Stout**; and, assistant secretary treasurer and assistant secretary, **Murrel J. Fischer**.

In order to serve better the rapidly growing packaging industry in the Middle West, **General Printing Ink Corp.** has announced the acquisition of the **E. J. Kelly Co.** and the **Michigan Research Laboratories** according to **E. J. Kelly**. **Thomas J. Craig**, formerly chief of the Protective Coatings Branch, Chemical Bureau of WPB, and more recently associated with the **Geo. H. Morrill Corp.**, a division of **General Printing Ink**, will be resident manager of these two firms. There will be no change in the present local management, personnel or policy of the company.

Fuel so clean that it can literally be handled with white gloves is being packed by the **Blaw-Knox Co.**, in Philadelphia. **Package Machinery Co.** has supplied this company with a second machine to assemble and wrap these 7½-lb. coal blocks made up of hitherto wasted anthracite and bituminous fines. The machine turns them out at the rate of 8 to 24 per minute.

In order to facilitate closer liaison between the heads of the equipment development, research and general manufacturing and sales departments, **Continental Can Co.** has made an organizational change which brings **Paul E. Pearson**, vice-president in charge of equipment development and research from Chicago to New York. Along with him come two assistants, **John G. Murray**, administrative, and **C. E. Maier**, technical. As now organized the equipment development and research department comprises four major branches, **Allen L. Malone**, general manager of research; **Allen M. Cameron**, general manager of equipment development and manufacturing; **W. H. Morgan**, general manager of cannery equipment service; and, **J. H. O'Neil**, manager of the patent department. **S. L. Flugge** will replace Mr. Maier as director of container research.

Fitting in with St. Louis' postwar expansion plans, the **Central States Paper & Bag Co.**, has purchased a three-story building containing 181,000 sq. ft. in which it intends to combine its production which is now divided among three units throughout the city. The company, makers of custom paper bags and rigid, transparent containers, are working 100% on war production now but expect the new plant to accommodate increased business postwar.

**Food Machinery Corp.**, manufacturers of canning machinery and allied equipment, has recently acquired the **Westminster Machine Works** of Westminster, Md., manufacturers of the Kyler line of labelers and boxers. Under the trade name of **FMC-Kyler**, Food Machinery will continue to build labelers in three types; non-adjustable, adjustable and **FMC-Kyler** boxers both motor driven or hand operated.

**Philip E. Doell**, in charge of resin and insulation material sales in the East Central district for the **General Electric Co.**, has been appointed district manager of the newly formed chemical de-

partment in the East Central district. His headquarters will remain in Cleveland. **T. E. Giblin**, who has been in charge of plastics sales for the company has been appointed manager of the department for the Central district.

The **Minnesota Mining and Mfg. Co.**, St. Paul, has announced that it will resume its pre-Pearl Harbor expansion program immediately postwar. Announcement has been made of plans for the construction of a new 400,000 sq. ft. "Scotch" tape addition to its St. Paul plant and a color quartz roofing granules plant in the South. In addition to these operations scheduled for immediately postwar, long-range plans are progressing for other additions and improvements in 3-M Co.'s expansion program which call for the expenditure of some \$7,000,000.

The Cambridge plant of the **Dewey and Almy Chemical Co.** has received its fourth award for outstanding achievement in war production which means that the plant now has three stars added to its Army-Navy "E" flag.

The men and women of the **American Machine & Foundry Co.**, Brooklyn, were presented recently with the Army-Navy "E" for excellence in war production.

**American Can Co.**'s newest recruits for the Armed Forces are Junior's talcum powder can and the paprika can which have been adapted to form the double shell of a hand-held distress signal flare. A flyer, carrying the flares with his Mae West, can release a colored smoke signal by pulling a ring in the top of the container. This automatically ignites powder packed in the small inner container, while the double shell protects the hand from heat generated by the flare. Present schedules call for delivery of more than 1,500,000 containers or double shells to **Aerial Products, Inc.**, originators of the flare.

**United States Plywood Corp.** has announced the removal of its executive offices to the **Weldwood Bldg.**, 55 West 44 St., New York 18. The warehouse will remain at 616 West 46 St.

The **E. I. du Pont de Nemours & Co., Inc.**, has passed the 100-mark in "E" awards and stars for war production. In all, 33 plants have received the "E" and a total of 70 stars have been conferred.

**L. F. Maurer**, formerly with the **Bell Aircraft Corp.**, has been appointed representative of the **Consolidated Packaging Machinery Corp.**, in the Central Seaboard area. The company office under Mr. Maurer's direction will be located in the **O'Sullivan Bldg.**, Baltimore, Md.

**B. C. York**, formerly with the **Ford Motor Corp.**, has joined the **Consolidated Packaging Machinery Corp.**'s Chicago sales force to take over a substantial part of the responsibilities of **Thomas C. Kelly** who intends to retire soon.

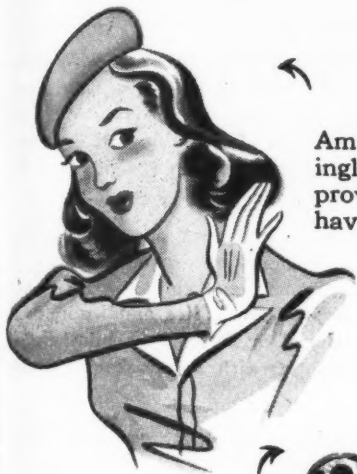
**Bernard Gould**, formerly in charge of dip tank sales, has been appointed general sales manager and advertising manager of the **Aeroil Burner Co., Inc.**, West New York, N. J.

**W. J. Muller's** duties have been extended to take in the management of the Kansas City plant for **Chase Bag Co.** He will continue to supervise sales for the Denver territory as heretofore.

The **J. M. Huber Co.** reports that its new channel-carbon black plant at Borger, Texas, is nearing completion and is expected to start in production sometime in May. A new furnace-type plant is also under construction at Borger scheduled to start rolling in July and, in addition, a **Defense Plant Corp.**, channel plant, to be designed and operated by Huber, is expected to get under way soon. To meet the heavy increased demand for China Clay which plays an important part (Continued on page 160)

# FACTS WORTH REMEMBERING

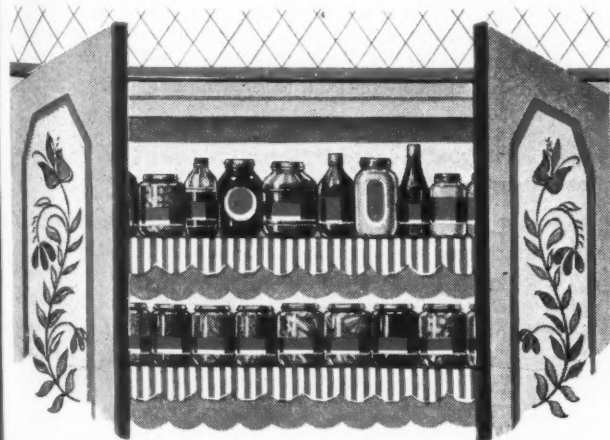
## WHEN MAKING YOUR PACKING PLANS



American women have never willingly given up any practical improvement in living to which they have become accustomed.

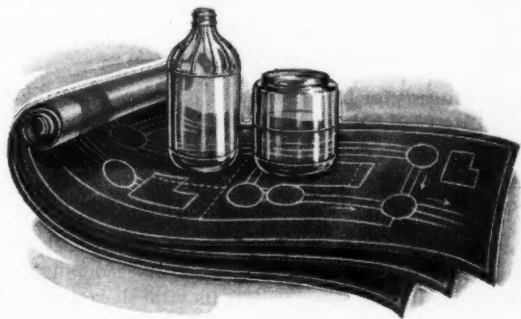


American women have now become accustomed to seeing the quantity, quality, color and condition of the foods they buy for their families. They have become accustomed to a package which offers greater convenience in use.



Users of Duraglas Containers enjoy special benefits from their production lines to their customers' minds because:

Owens-Illinois "know-how" gives them a lift to production... Owens-Illinois merchandising service gives them a lift in distribution... Duraglas Container advertising to millions of consumers gives a lift to the sales of products packed in Duraglas jars and bottles.



Include Duraglas Containers in your packing plans. Add the power of a preferred package to public acceptance of your brands.

### OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO

Branches in All Principal Cities

## Duraglas

BOTTLES

Preserve, Protect, SELL ON SIGHT

# For Your Information

One of the first known treatises on the complex operations of collection, sorting, distribution and consumption of wastepaper, "**The Wastepaper Industry**" by Harry J. Bettendorf, has recently been published by **Board Products Publishing Co.** of Chicago. Price \$1.50. Written for the vast majority who have little or no idea of the vastness of the subject, the booklet tells the tremendous importance of wastepaper as a raw material for paperboard and paperboard boxes. This publisher has also released **R. P. Bigger's "The Manufacture of Fibre Cans,"** price \$1.00. It is completely illustrated, showing the various types of fibre can manufacturing operations and the principal types of cans. The address of the publisher is 228 N. LaSalle St., Chicago 1.

Realizing the growing need for the type of handbook that answers the most frequently asked questions on the fabricating of plastic materials, the **Celanese Plastics Corp.**, a division of **Cleanese Corp. of America**, recently published a 136-page manual, entitled "**Fabricating Methods for Lumarith, Celluloid and Similar Thermoplastic Materials.**" Written in simple, direct language, comprehensively diagrammed and illustrated, the manual contains complete information on the fabricating of thermoplastics including primary and secondary cutting procedures; the fabricating of film, foil and sheet stock; the various molding processes and methods for finishing all types of articles made from these materials. The paper situation limits the distribution to one copy to any executive requesting it on company letterhead. Additional copies may be bought for \$1.00 each.

As many tin cans for food and other products—20 billion—were made in 1944 as in 1940 but the amount of tin consumed dropped from 34,400 long tons in 1940 to 18,500 long tons in 1944 according to **Earl E. Pearson**, vice-president in charge of equipment development and research for the **Continental Can Co.**

With emphasis on the fact that "distribution rather than production must play the major role in the postwar economy" and that if retail distribution is to contribute its vital share to the creation of more jobs and the maintenance of purchasing power "more intensive retail selling and service is imperative," the **National Dry Goods Assn.'s** Postwar Committee on Better Selling has just issued a 28-page report on the subject entitled "**Gearing Management for Better Selling.**"

In order to lay before the investigator simple, direct and useful information about the use of molded plastics, the **Chicago Molded Products Corp.** has published a booklet titled "**The Story of Plastic Molding.**" While the information is not intended to be all-inclusive it does present the essential facts about molded plastics so that the user has some chance of being on a common ground with his molders.

The **National Dehydrators Assn.** has moved its offices from Washington to 45 E. Wacker Drive, Chicago, 1.

Send to the **National Assn. of Mfrs.**, 14 W. 49th St., New York 20, for a copy of the folder "**Industries Views on Trade-Mark Reform.**" This booklet discusses fully the principles involved in the **Lanham Bill** passed by the House of Representatives in March and awaiting action in the Senate.

In a recent address before the **Chicago Packaging Club**, **Ezra E. Clark**, vice-president and general manager of **Clark Trutractor**, pointed out that intelligent analysis of the functional requirements of industrial packages is bringing about a swift and far-reaching revolution in package design in many industries. Two conspicuous examples of this trend cited by Mr. Clark are the development of waterproofed fibreboard containers and the widespread adoption of palletized unit packages for many industrial products.

The natural and synthetic rubber adhesives manufactured by **The B. F. Goodrich Co.**, Akron, Ohio, are described in a new booklet recently published, copies of which may be obtained free upon request to the company. One of the most important parts of the new publication is the discussion on how to choose the right kind of cement for various applications. The booklet outlines the difference between the vulcanizing and non-vulcanizing types of rubber cement and has a table giving data on cement weights, colors and base materials used. Many of the general applications for the cements are alphabetically listed giving the designation by number of the Goodrich adhesive recommended for the job.

Bundles of clothing being shipped abroad by the **Greek War Relief Assn.** are being protected for the long, rough journey in very much the same way that similar bundles are handled by the Army, Red Cross and other agencies. The clothing is compressed into bales and covered with a tight-fitting tubing which is being manufactured by the **Bemis Bros. Bag Co.**, St. Louis.

Postwar applications of **Pliofilm** in moisture-protected packaged consumer items such as outboard motors, sewing machines, refrigerator compressor units, saws and shot guns are the subject of experiments carried out by **Goodyear Tire and Rubber Co.** **Protek-Sorb**, a desiccant produced by **Davison Chemical Co.**, is used to absorb residual moisture as with war packaging of airplane engines.

**Claremont Waste Mfg. Co.**, Claremont, N. H., makers of flocks and plastic fillers, has published a four-page folder showing actual color samples of its rayon, cotton and wool flocks.

In the interest of paper conservation and efficient sealing, the **Mid-States Gummed Paper Co.**, Chicago, has published a large wall chart especially designed for shipping rooms showing in eight steps how cartons should be sealed to protect them against hazards. Free copies may be had by addressing the company at 2515 South Damen Ave., Chicago 8.

With an eye on postwar markets, the **Great Atlantic & Pacific Tea Co.**, **Wayne University**, the **United Air Lines** and the **Goodyear Tire & Rubber Co.** are cooperating on a survey to determine consumer preference for airborne perishables. An air-shipment of broccoli, for example, outsold the surface-transported variety by two to one, even at the price of 35 cents a head as compared with 19 for the other. Officials say that small shipments of various perishables will continue to be sent and test sales conducted.

**George E. Clausen** has recently been elected president of the **National Dehydrators Assn.**, Washington, D. C.

"**Arrived O.K.**" is a new booklet published by **Minnesota Mining and Manufacturing Co.** detailing information on adhesives to meet Government specifications to withstand rough treatment, extremes in temperature and high humidity. Actual photographs illustrate step-by-step operations involved in sealing fibreboard and V-board shipping containers and waterproof case liners for export shipment. Free copies may be had from the company, St. Paul 6, Minn.

In recognition of his work as food technologist for the **Bureau of Chemistry, U.S.D.A.** and **National Canners Assn.**, respectively, as director of research for the **Glass Container Assn.** and as a consulting food technologist, **Dr. A. W. Bitting** will receive the **Nicholas Appert Medal** given by the Chicago section of the **Institute of Food Technologists**.

A booklet which takes into cognizance the critical carton situation and gives simplified methods (Continued on page 162)

3 reasons why you should investigate

# FIDEL-I-TONE\*

HIGH FIDELITY COLOR REPRODUCTION  
for PACKAGING MATERIALS



1

## FINER SCREENS

With **FIDEL-I-TONE** super-etched alloy plates, the use of much finer screens is possible, even on uncoated boxboards and paper. **FIDEL-I-TONE** reproduction is delicate and faithful.



2

## BRIGHTER COLORS

Because **FIDEL-I-TONE** plates are chemically resistant, certain brilliant pigments that would destroy images on conventional plates can be used. **FIDEL-I-TONE** colors are more intense and less subject to marring.



3

## GREATER UNIFORMITY

**FIDEL-I-TONE** plates are tough and close grained . . . almost indestructible. The 250,000th impression is like the first. You get uniform color and detail, regardless of the length of run.

\* TRADE-MARK

It is not too soon to explore the possibilities of **FIDEL-I-TONE** for stepping up the appearance of your postwar packaging. This new Lord Baltimore Press development enables you to obtain color illustrations of eye-arresting beauty on folding boxes, labels and inserts . . . boxboard and paper alike . . . coated or uncoated. We will gladly send you more information.

Folding Boxes  
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155

# U. S. patent digest

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at ten cents each in currency, money order or certified check; postage stamps are not accepted.

**Container & Method of Making Same**, G. A. Moore (to Shellmar Products Co., Mount Vernon, Ohio). U. S. 2,370,680, March 6. A method of forming a container comprising in combination, folding a sheet of waxed lining material to form a tube having a marginal overlap, heat-sealing the overlap to form a longitudinal seam, folding a larger sheet of laminated paper and rubber hydrochloride facing innermost to expose marginal portions, covered with reinforcing paper base board.

**Bottle Stopper**, A. H. Johnson, Chicago, Ill. U. S. 2,370,732, March 6. A closure for container with a neck provided with an interior reversely curved closure seat, a removable closure fitted in the neck having a curved surface shaped to correspond to said seat for contact therewith.

**Interchangeable Typewriter Carton**, L. F. Perkins, Wayland, Mass. U. S. 2,370,749, March 6. A carton for typewriters or the like comprising an outside box, a tube of less depth than and being within and contacting an end extremity of said box when in loading position and having sides all of which are spaced from the sides of said box.

**Container Fabricating Machine**, R. Spurr (to The American Paper Bottle Co., Toledo, Ohio). U. S. 2,370,757, March 6. In a machine for fabricating paper containers, a movable mandrel for interiorly supporting a tubular paper container with end closure flaps projecting beyond the mandrel end.

**Dispensing Bottle**, H. R. Stott, Philadelphia, Pa. U. S. 2,370,820, March 6. In a liquid dispensing bottle comprising a base, a top wall, a body wall connecting the base and the top wall, a measuring partition integral with the body wall forming main and dispensing compartments with the bottle, said partition having an overflow lip located in suspended relation with the opposite portion of said body wall.

**Container Holder**, A. Taurman, Birmingham, Ala., and L. H. Hyneman, Atlanta, Ga. U. S. 2,370,822, March 6. A container holder formed from spring wire bent to comprise upper and lower resilient clasp members on opposite sides joined together in front by vertical members, and a supporting base for the container joining the lower horizontal clasp members.

**Container Cover and Attachment Therefor**, R. D. Anderson (to Lawrence Paper Co., Lawrence, Kans.). U. S. 2,370,927, March 6. A container having outwardly and downwardly turned flaps on the end walls thereof, a cover for the container having downwardly turned flaps on the sides and ends thereof, said turned down flaps on ends of the cover having apertures therein and provided with a fold line and upwardly extending flap portions, thus holding cover on container.

**Bottle Packaging Machine**, J. Cattonar & G. Olm (to Edward Ernold Co., New York, N. Y.). U. S. 2,371,026, March 6. In a bottle packaging machine, a grouping device including the combination of a

multiple row feeder for bottles, means shutting off said multiple row feeder after setting a charge of bottles in position as a unit charge, and provided with pressure building means.

**Bottle Packaging Machine**, J. Cattonar and G. Olm (to Edward Ernold Co., New York, N. Y.). U. S. 2,371,027, March 6. In a bottle packaging machine, a bottle guiding device, comprising a slidable trap floor, a spring basket, a stationary frame of chutes located between said trap floor and said spring basket.

**Tying Machine**, B. H. Bunn (to B. H. Bunn Co., Chicago, Ill.). U. S. 2,371,024, March 6. A package tying machine comprising in combination with a frame, a package support mounted on the frame, a bearing carried by the frame above and at one side of the package support, a twine arm hub journaled in the bearing.

**Apparatus for Weighing a Stream of Varying Quantity of Material**, O. W. Fisher, F. J. White & H. R. Weatherston (to Fisher Flouring Mills Co., Seattle, Wash.). U. S. 2,371,040, March 6. A scale for weighing and recording continuously varying weights, as material on a conveyor means, a scale beam responsive to varying weights of material on the conveyor means.

**Machine for Setting up Box Blanks**, H. W. Gregoire (to Oskar W. Wikstrom, Newton, Mass.). U. S. 2,371,046, March 6. A paper-box machine for setting up blanks having triple flaps for one or more of the resulting box walls, in combination, wall and presser plates in mutually opposed relation defining a forming throat.

**Document Package**, F. H. Groves, Dormont, Pa. U. S. 2,371,135, March 13. An envelope having a body and a flap at each end for closing it, and a rivet-like device secured to the envelope and flap at each end of envelope for protecting the same against tampering.

**Multiple Magazine Loading Mechanism for Cup Dispensers**, J. W. Carlson (to Automatic Canteen Co. of America, Chicago, Ill.). U. S. 2,371,150, March 13. A cup dispenser loading mechanism comprising an elongated shelf for supporting stacks of cups, a hole in said shelf positioned substantially midway between the ends thereof, a cup dispenser position beneath said hole.

**Machine and Process for Making Cellulose Films and the Like**, E. Czapek, New York, N. Y. U. S. 2,371,155, March 13. An apparatus for the manufacture of extensive lengths of sheets, films and the like by means of an endless belt guiding drums on the inside for supporting said belt.

**Container**, J. E. Socke and G. E. Eckman (to American Can Co., New York, N. Y.). U. S. 2,371,194, March 13. In a container having a body, a cover for said body, and a pair of hinge pintles disposed one on each of two opposing edges of said cover, the

improvement comprising receiving means on said body for said pintles, and pivotally mounted locking means on said body for holding said pintles in receiving means to retain the cover.

**Binder**, L. J. Thoele (to Isidor Spinner, Chicago, Ill.). U. S. 2,371,198, March 13. A ring comprising a strip of material formed into a closed loop of more than 360 deg. one end of the strip constituting a curved finger the inner and outer surfaces and the edges of which are smooth and devoid of outward projections to facilitate insertion of the ring through an opening in material to be secured by the ring.

**Blasting Cap Package**, J. B. Smith (to Western Cartridge Co., East Alton, Ill.). U. S. 2,371,271, March 13. A safety detonator package, comprising a container having rectangular side walls and a base, a liner defining a storage space therein, unsealed detonators assembled in the said storage space in lateral contact in a plurality of layers parallel to the base.

**Means for Venting Milk Cans**, J. A. Hopwood (to Hopwood Retinning Co., Inc., Jersey City, N. J.). U. S. 2,371,296, March 13. A plug cover provided with a plug portion is adapted to fit into the neck of a milk delivery can; a depressed channel is formed in the under side of the bottom plate of said plug.

**Closure Cap**, F. W. Livermont (to Tubing Seal-Cap, Inc., Los Angeles, Calif.). U. S. 2,371,900, March 20. A closure cap for sealing the end of a tubular member.

**Knotless Package Tie**, I. R. Trevisan, Newark, N. J. U. S. 2,371,920, March 20. In a knotless tying device, a gripping post, hooks radially disposed adjacent an end of said post and adapted to gather portions of a binding to be tied.

**Wrapped Article and Method of Wrapping the Same**, L. D. Freiberg, Akron, Ohio. U. S. 2,371,985, March 20. An article containing moisture which is more or less present at the surface thereof and having thereon a wrapper of tough flexible transparent sheet material with a face coated with clear, permanently tacky, pressure-responsive, water-repellent adhesive wrapped snugly about the article with adhesive coated face applied against the article, wrapper being lapped and crimped or folded about article snugly encasing it.

**Making of Bags and Envelopes**, T. H. Krueger, Shelton, Conn. U. S. 2,372,008, March 20. The process of making a paper container having a heat softened adhesive strip for closing it which consists in bringing together a front mostly non-adhesive web and a back mostly non-adhesive web while still in separate webs.

**Sealing Machine**, J. E. Underwood (to Aluminum Co. of America, Pittsburgh, Pa.). U. S. 2,372,138, March 20. In a sealing machine, a sealing head, a tool carried by said head for deforming the skirt wall of a closure into conformity with screw thread configurations on a container adjacent its mouth.

**Glass Screw Cap**, H. C. Buchman (to Anchor Hocking Glass Corp., Lancaster, Ohio). U. S. 2,372,156, March 20. A glass screw cap for containers, comprising a body, a peripheral flange depending from the body and terminating in a thickened reinforcing portion at its free edge.

**Container**, C. H. Barr (to Sharp & Dohme, Inc., Philadelphia, Pa.). U. S. 2,372,181, March 27. In a package of the type comprising a container having a neck sealed

# SAND

## Ever try to melt it?

**I**F you want to tackle a tough job, just try melting some silica sand. Terrific heat is required. Before you got the temperature high enough to melt silica sand, steel would run like water. The most heat-resistant furnace linings would fail. Yet, in order to make glass, silica sand must be melted.

Fortunately, a long time ago, someone discovered a very helpful trick. If some other materials were mixed with the sand, it could be melted at practical temperatures. Scientists call such materials "fluxes." If it weren't for fluxes there probably wouldn't be a glass industry today.


But as is so often the case, it's easy to get too much of a good thing. If the glassmaker yields to the temptation to make the melting job a little easier by putting in more of these

materials, the glass produced is of inferior quality.

The best glass for all normal uses is the glass that has the highest percentage of pure silica sand in its make-up. The ideal bottle—although it couldn't be made commercially—would be almost pure melted sand.

It is easy to see, once you understand these simple facts about glassmaking, that quality is determined to a large degree by the way the glassmaker tackles that basic problem of melting silica sand.

Armstrong's glassmakers, due to experience and constant research, have learned a lot about sand melting. What they know, and the integrity with which they apply it, is an important factor in the uniform high quality of Armstrong's Glass.

For further interesting information on the making of good glass, send for your free copy of "Men and Glass." Address Armstrong Cork Company, Glass and Closure Division, 5905 Prince St., Lancaster, Penna. 



## ARMSTRONG'S GLASS

*and*

## ARMSTRONG'S CLOSURES

by a stopper and an extension beyond the neck, the neck being adapted to be broken opposite the stopper to remove the extension to provide access to the stopper.

**Container**, C. H. Barr, Glenolden, Pa. (to Sharp & Dohme, Inc., Philadelphia, Pa.). U. S. 2,372,182, March 27. In a package comprising a container having a neck sealed by a stopper and an extension beyond the neck, the neck being adapted to be broken opposite the stopper to enable the extension to be removed to provide access to the stopper.

**Closure**, H. W. Sanford, Knoxville, Tenn. U. S. 2,372,227, March 27. A receptacle for containing beverages under pressure comprising a container having a neck portion, a removable closure having a skirt embracing the neck portion with an adjustable interlocking connection.

**Label Dispenser**, R. S. Avery, Los Angeles, Calif. U. S. 2,372,245, March 27. In a label dispenser for a strip of labels mounted on a backing by pressure-sensitive adhesive, means providing a relatively thin peeling edge over which the backing may be drawn to peel the labels therefrom.

**Method of Filling & Sealing Metal Containers**, V. R. Pawelsky & F. F. Heiser (to Automatic Products Co., Milwaukee, Wis.). U. S. 2,372,290, March 27. The method of filling and sealing a drum having a plurality of sections and one less connecting element than sections, the element having an opening therethrough.

**Ornamental Box**, R. I. Rhodes (to Mason Box Co., Attleboro Falls, Mass.). U. S. 2,372,294, March 27. A box comprising an end wall, a peripheral wall extending around the periphery of the end wall and seating on the margin thereof, an elongate strap extending around said walls with marginal flanges holding walls together.

**Box or Container**, K. T. Buttery (to Sutherland Paper Co., Kalamazoo, Mich.). U. S. 2,372,312, March 27. A box or container formed of a blank comprising an octagonal top member positioned immediately of the blank and complementary bottom members positioned at the ends of the blank and coacting to provide an octagonal bottom.

**Bottle Holder**, E. L. Arneson (to Morris Paper Mills, Chicago, Ill.). U. S. 2,372,351, March 27. A collapsible bottle carrier comprising sheet material formed and folded to provide a receptacle having a bottom with side panels flexibly conjoined at their lower ends to opposite side margins of the bottom.

**Container**, C. H. Barr (to Sharp & Dohme, Inc., Philadelphia, Pa.). U. S. 2,372,352, March 27. In a package comprising a container having therein biologically active substance or the like which is adapted to be placed in usable condition by the addition of water, which container has a neck sealed by a perforated stopper through which water may be introduced.

**Receptacle & Closure**, C. F. Kramer (to Ford Motor Co., Dearborn, Mich.). U. S. 2,372,381, March 27. In combination, in a box closure, comprising a track having angular flanges formed on opposite sides thereof with plate slidably disposed on upper surface of said angular flanges.

**Closure Setting Mechanism for Containers**, I. F. Mandell, New York, N. Y. U. S. 2,372,385, March 27. In a machine for bottoming paper containers, an apparatus for forming a circular disc into an inverted cup-shaped closure.

**Hermetically Sealed Package**, H. A. Rohdin, Glen Ridge, N. J. U. S. 2,372,452, March 27. A package comprising: a substantially rigid outer container, a closure panel therefor; a member below said closure panel; and means on the walls of said container engaging said member and holding same in contact with closure.

**Method for Packaging Beverages**, R. J. Stewart (to Crown Cork & Seal Co., Inc., Baltimore, Md.). U. S. 2,372,457, March 27. The method of packaging readily foaming beverages in containers which comprises partially filling a container with the beverage so as to leave a body of air above the surface of the beverage.

**Bundle Sealing Machine**, W. L. Irvine (to The American Sugar Refinery Co., New York, N. Y.). U. S. 2,372,578, March 27. A machine for closing and sealing the open tops of bundles, the combination of means for advancing a bundle with an open top in upright position, movable members for forcing one wall of the top inwardly, a plate engaging the wall opposite to that forced inwardly, means for applying adhesive to the inner surface of said opposite walls, means for moving the plate to fold said opposite wall over and upon the infolded wall, and to form the remaining walls of the top into flaps, and means for applying adhesive to the flaps.

**Bottle Carrier**, E. C. Potter (to Container Corp. of America, Chicago, Ill.). U. S. 2,371,312, March 13. A bottle carrier formed of a single blank of foldable paper-board or like material and comprising a handle member and a collapsible bottle receiving portion in form of parallelogram.

**Heat Sealable Waxed Wrapping Sheet and Process of Manufacture**, C. M. Rhodes & H. W. Wendorf (to Rapinwax Paper Co., Minneapolis, Minn.). U. S. 2,371,314, March 13. The method of heat sealing a flexible transparent sheet to the surface of the same or similar material which comprises applying a solution having as an ingredient thereof ethyl cellulose to one side of the sheet, and evaporating the solvent of said solution to form a substantially even coating thereon.

**Bottle Carrier**, W. A. Ringler (to The Gardner-Richardson Co., Middletown, Ohio). U. S. 2,371,317, March 13. A bottle carrier formed from a single blank of a flexible material and comprising an elongated band portion adapted (when its ends are joined) to be erected as a structure to surround a substantially rectangular assembly of bottles or the like.

**Dispensing Container**, J. J. Jacobsen, New York, N. Y. U. S. 2,371,332, March 13. A dispensing container comprising a receptacle having an outlet opening, and an ejector plunger mounted for sliding movement in said receptacle.

**Container**, P. H. Waller & E. B. Nottingham, U. S. 2,371,369, March 13. A container which is capable of being shipped in knocked down condition, then set up and used and subsequently broken down into its component parts.

**Secondary Closure for Spirituous Beverage Bottles**, L. P. Weiner (to Hiram Walker & Sons, Inc., Peoria, Ill.). U. S. 2,371,372, March 13. In combination with a bottle having a neck and removable primary closure therefor including a cylindrical skirt portion extending downwardly from the mouth of the bottle and in exteriorly encircling relation to the neck.

**Submersible Container**, I. R. J. Mumford, Welwyn, England. U. S. 2,371,404,

March 13. A submersible container for the transport of goods comprising a casing of cigar shape divided up into a plurality of interior compartments by a number of transversely arranged bulkheads, at least one compartment constituting a hold for goods with removable hatch, the remaining compartments each containing an inflatable ballonette and having water inlet and exit holes causing container to submerge.

**Magazine for Safety Razor Blades**, J. Muras (to Gillette Safety Razor Co., Boston, Mass.). U. S. 2,371,406, March 13. A protected blade unit comprising a thin, sharp-edged blade having a longitudinal slot therein opening through the blade.

**Bottle Carrier**, B. Rothstein (to Old Fashion Ma's Root Beer Bottling Co., Wilkes-Barre, Pa.). U. S. 2,371,471, March 13. A bottle carrier formed from a paper blank to comprise a base large enough to receive two bottles thereon.

**Dispensing Container**, V. E. Heywood & W. M. Cary (to United States Envelope Co., Springfield, Mass.). U. S. 2,371,521, March 13. As a new article of manufacture a dispensing container for powdered or granular materials, comprising an envelope having front and rear walls, one of said wall near one edge of the envelope being perforated to provide a series of dispensing apertures.

**Spectacle Case**, N. M. Sullivan (to Plastic Cases, Inc., Columbus, Ohio.) U. S. 2,371,557, March 13. In a spectacle case, base and cover sections, a hinge union between said sections comprising an upstanding tongue on said base section, said tongue having bearing recess formed in the inner face thereof.

**Nested Food Carrying Equipment**, H. M. Badger & O. M. Anderson (to Landers, Frary & Clark, New Britain, Conn.). U. S. 2,371,578, March 13. A plurality of food containers nested one upon the other, each container having its top, a handle and the outer wall of each container adjacent its top having a slight inset to provide a seat and a slightly reduced peripheral portion extending upwardly from the seat.

**Sheet Metal Container & Closure Seal Therefor**, M. Schwartz (to Barrel Fitting & Seal Corp., Chicago, Ill.). U. S. 2,371,586, March 13. A container comprising an open-ended shell having an annular recess extending outwardly in the wall of the shell adjacent the open end thereof, and a closure for enclosing the open end.

**Cartridge Container**, A. G. Liebmann (one half to H. A. Blessing) Washington, D. C. U. S. 2,371,630, March 20. A cartridge container having an inner tubular member with deformed walls, flanged disk end closures, seated upon the end of the walls, end closure disks seated upon the flanged disks, the inner tubular member and disks being encased with an outer tubular member of greater length.

**Automatic Release Aerial Delivery Container**, F. G. Manson & J. J. Maskey, Dayton, Ohio. U. S. 2,371,640, March 20. An automatic release aerial delivery container comprising, in combination, a hollow receptacle, a parachute in one part of said receptacle, and operating mechanism in another part of said receptacle.

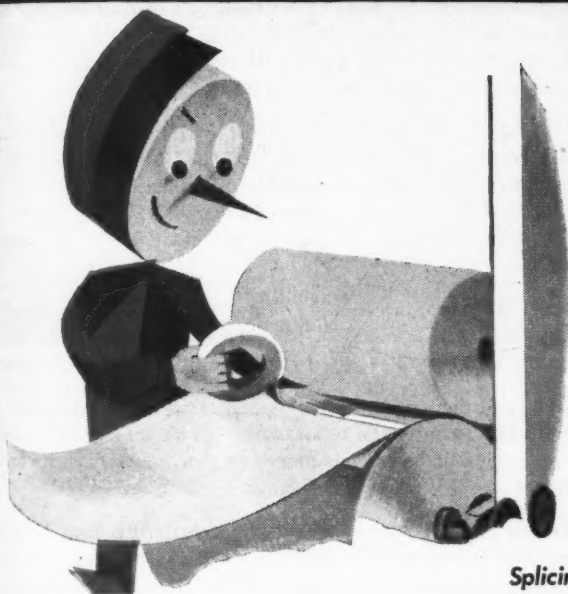
**Crate**, J. H. Woodberry & G. B. Russell, Metuchen, N. J. U. S. 2,371,663, March 20. A crate comprising spaced enclosing portions and three spaced trough-like members extending from one of said enclosing portion to the other.



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Package Sealing



Splicing



Holding Job Tickets

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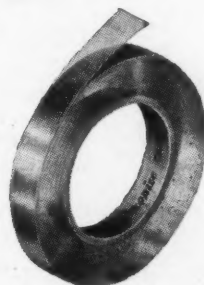
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TAGS • LABELS • SEALS • SET-UP BOXES • MARKING SYSTEMS • PAPER SPECIALTIES

## Plants and people

(Continued from page 152) in many synthetic rubber compounds, Huber is rushing construction of a new clay refining unit, capacity 25,000 tons per year, in connection with its other rubber clay plants at Langley and Graniteville, South Carolina. Huber's production of paper clays is centered at Huber, Ga.

Elizabeth Woody, former director of foods for McCall's Magazine, has been appointed director of the **General Electric Consumers Institute**. As director of the institute, Miss Woody will head up a broad program of basic food research and an extensive consumer information program designed to disseminate as widely as possible practical solutions to homemaking problems.

Goodyear Tire & Rubber Co. has announced the appointment of **United States Plywood Corp.** as exclusive sales agent for Plio-bond, universal synthetic adhesive cement.

E. A. Kightlinger, vice-president and general manager of the **Canton Glass Co., Inc.**, Marion, Ind., has announced the expansion of the department supervising the company's overall program on private mold production. Inquiries from manufacturers in widely varied lines have indicated a heavier postwar demand and the need for an enlarged staff of competent men to expedite preliminary planning and to develop a practical manufacturing procedure on each particular design.

Robert L. Lee, packaging technologist with **Shellmar Products Co.**, Mt. Vernon, Ohio, at the request of the U. S. Transportation Corps, European Theatre of Operations, has been appointed to act as technologist to assist in setting up a program of packaging, packing and processing of military equipment in the European Theatre.

Richard T O'Connor has been appointed purchasing agent for the **Thatcher Mfg. Co.**, Elmira, N. Y. **George A. Mellor** is the new advertising agent of the company succeeding **Norton B. Jackson**.

With an eye to enlarging its facilities and service to packagers, **Roto-Lith Ltd.**, printers on cellophane, foil, acetate, glassine and other packaging materials has moved to new quarters in its own building at 30-32 West 13th Street, N. Y. C.

**Shy Rosen**, formerly general manager of **Milprint, Inc.**, is now Captain Shy Rosen of the Quartermaster Corps. Recently promoted, he is administrative officer in the Packing and Crating Section of the Storage Branch of the Storage and Distribution Division in the Office of The Quartermaster General.

Appointment of **Howard Weinrich** as St. Louis representative of **Marathon's** food packaging division was announced recently. He takes over the territory formerly handled by **H. E. Pierce**, transferred to Philadelphia.

**Walter Kidde & Co., Inc.**, Bellville, N. J., recently purchased the capital stock of the **Youngstown Miller Co., Inc.**, manufacturers of plastic coaters and oil reclaimers. **F. L. Gerin** is vice-president and general manager. Other officers are **John F. Kidde**, president; **Harold A. Cartier**, vice-president; **G. Crosby Hiss**, secretary; and **William Deyerberg**, treasurer and comptroller.

At a special meeting of the board of directors held recently, **Dr. A. E. Gessler** was elected a vice-president of the **Interchemical Corp.**

**Cecil W. Taylor** has been transferred to the Indianapolis, Ind., territory to represent the **H. B. Fuller Co.**, manufacturers of industrial adhesives.

**Oliver H. Clapp**, a vice-president of **Stein, Hall & Co., Inc.**, has recently returned from a four months' business trip to Brazil.

The New England office of the **Eagle Printing Ink Co.**, Division of **General Printing Ink Corp.**, has been moved from Cambridge



## "One of the soundest investments we ever made!"

"YOU are looking at 13 specific examples of why we're completely sold on Araflex: *No curling and no warping!* And we've been testing Araflex pretty steadily now, for ten years. It's one of the soundest investments we ever made! We particularly like the clean and simple way it handles. I personally am glad to recommend your Araflex adhesive to anyone in the paper box industry."—so states Harry Schmidt, President of Henry Schmidt & Bros., Philadelphia, Pa.

A statement like this warrants your investigation of Araflex. For use in general box work, Araflex is rec-

ommended for S & S, Potdevin, Parry and stripping machines—and especially for difficult bench work. It sticks all conventional kinds of paper securely, and when applied, Araflex provides the desired setting and drying time. No cooking or soaking is necessary with Araflex—It melts quickly and takes appreciable water reduction.

Try Araflex and see for yourself the quality and economy you get. Write for a 100 lb. trial shipment—billed at quantity price and subject to return if not entirely satisfactory. And—see the Arabol Representative when he calls. He knows adhesives.

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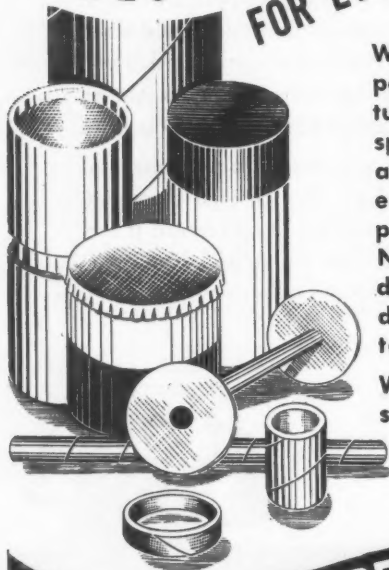
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to 67 Batterymarch St., Boston 10. Stanley A. Howell will continue as branch manager.

**Jules E. Timer** recently resigned as chief packaging engineer and Eastern sales manager, industrial division, for **Sherman Paper Co.** to join the **Criterion Paper & Twine Co.** as executive director.

Because the materials manufactured by the company and the uses of these materials have been developed far beyond the narrow description given them by the name of the company, the **Rogers Paper Mfg. Co.**, and its stockholders have decided that the name henceforth will be **Rogers Corp.**

**John Goldstein**, treasurer and a director of **Stein, Hall & Co., Inc.**, will retire from active business July 1, after 37 years of association with the company.

The **Army's Legion of Merit** award was presented to **Maj. J. A. Calamari**, Medical Administrative Corps, U.S.A., at Governor's Island, March 30, 1945, as a citation for his outstanding work in solving metallurgical problems and for developing methods of preservation packaging of surgical instruments as reported in **MODERN PACKAGING** February 1945, p. 125, *Cathodic protection with aluminum foil wrap.*

**Louis Lundquist**, superintendent of the **J. M. Huber** factory in Bayonne, N. J., died, March 17, of a lingering illness.

**George F. Pond**, vice-president and Western sales manager of the **Pneumatic Scale Corp., Ltd.**, died on March 13.

**Arthur Anthony Morse**, one of the charter members of the Board of Governors of the **Can Mfrs. Institute** died on March 27. Since his retirement from the **American Can Co.** in 1941, Mr. Morse lived in California.

**John Earl Hatt**, manager of the cellophane division, **E. I. du Pont de Nemours & Co., Inc.**, died suddenly on April 13.

**Samuel M. Langston**, of the **Samuel M. Langston Co.**, Camden, N. J., and one of the founders of the **Packaging Machinery Manufacturers Institute**, died April 11.

**Perry A. McCaskey**, president of **Minerva Wax Paper Co.** until 1944, died March 13, at his home in Cleveland.

## For your information

(Continued from page 154) of building displays for glassed coffee without the customary cutting of the case has been published by **Owens-Illinois Glass Co.** for distribution to retail outlets. Requests will be filled by the Merchandising Division, Owens-Illinois Glass Co., Toledo 1, Ohio.

Rust preventives, a major element in the broad subject of packaging, are quite completely discussed in a new booklet, prepared by **E. F. Houghton & Co.'s** research staff, titled "Rust—Causes and Prevention." Although no attempt has been made to cover the entire packaging problem, including wrappings, it does cover the causes and prevention of the corrosion of metals, including the necessity for and methods of proper cleaning prior to application of preventives.

The executive committee of the **Folding Paper Box Assn.** at a recent meeting elected **Ermin P. Ruf** as president of the association for one year. Mr. Ruf is president of the **Wayne Paper Box & Printing Corp.** and was a member of the executive board and board of directors of the association last year. He succeeds **William W. Fitzhugh.**

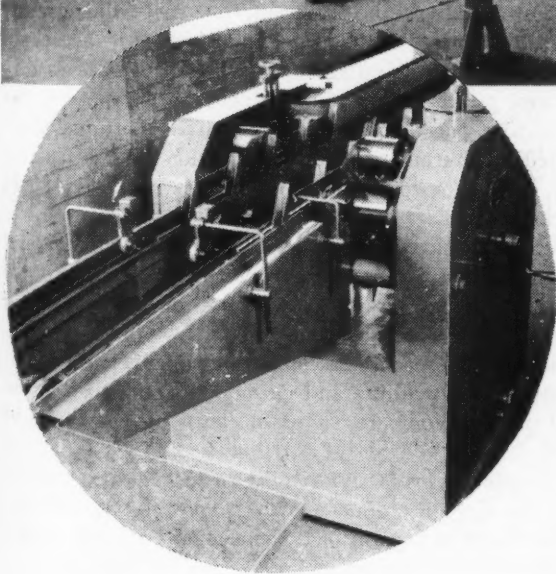
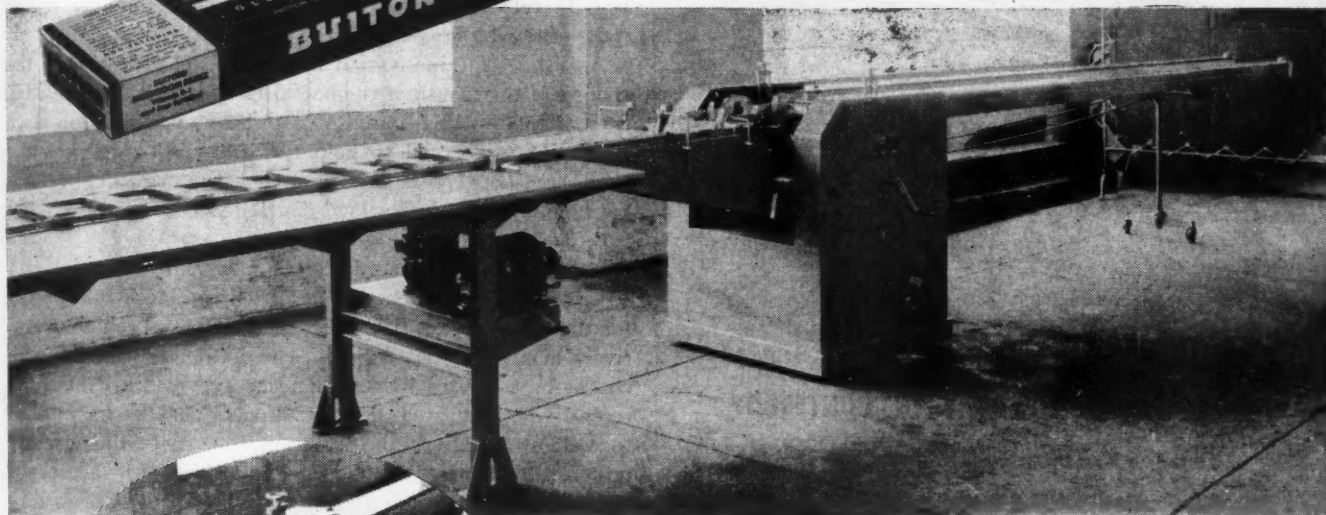
**CORRECTION:** The display for **The Children's Pharmacal Co.** on page 110 of the March issue was credited to **Magill-Weinsheimer Co.**, while in reality it was manufactured by **Max Stern's Sons Co.**, Chicago, Ill.

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## NOW FULLY AUTOMATIC

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**N**OW every manufacturer, large and small, can enjoy the benefits of low cost automatic carton sealing. The Ceco Adjustable Carton Sealer at surprisingly low cost, now makes available a fully automatic machine with features not found on any other equipment in the packaging field at anywhere near its price.

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## The functional bag . . .

(Continued from page 120) flexible package was much simpler than in the case of retail packages. Due to the size of the institutional unit, the packaging operation had always been semi-automatic and, with the addition of heat-sealing machines to the packaging line, filling and closing costs were not increased.

### From canisters to bags

Dessert powder manufacturers have changed from canisters to the protective bag with good results. Standard Brands use a duplex heat-sealing bag for their 26 oz. Royal gelatin. This bag is made from 50-lb. bleached kraft lined with 75-lb. three-ply laminated glassine. The bottom of the bag is sealed with strip thermoplastic and the top and side are sealed the same way.

The closing machine is a rotary type closing machine heavily constructed so that it can seal through the heavy walls of the duplex bag.

An interesting innovation in this closing operation is the cooling of the mouth of the bag after heat and pressure have been applied. This is advisable on heavy construction since the paper walls tend to hold the heat, which reduces the chances of positive sealing if not cooled. The Royal gelatin package has been in national distribution for two years and is being continued.

For several years the tobacco industry has been using protective bags and pouches made of various laminated papers for the small pocket package. This use has been comparatively small and the difficulties in automatic packing and closing have limited its general acceptance. But it has been recently demonstrated that a good paper package for tobacco to retail at 5 cents can be produced; one that will efficiently protect the tobacco. This 3/4-oz. smoking tobacco package was introduced two years ago, with the package designed to fit the vest pocket, to provide a single day's supply to the smoker. The package was constructed from opaque 55-lb. laminated glassine and printed in three colors. An attractive display carton for counter promotion was utilized to hold ten packages.

Duplex bags have been utilized for cigar clippings and chewing tobaccos. The usual construction is a printed, bleached or natural kraft for the exterior and laminated glassine for the liner.

Some of the tobacco companies have developed semi-automatic lines for filling and closing, and the cost of the finished package compares favorably with that of the rigid package.

The flexible bag lends itself readily to automatic packaging for any free-flowing product. Where the bag is a self-contained shelf unit or institutional package unit, its cost is very low in proportion to its performance.

### Consumer acceptance improving

The performance of printed bags prior to the war was not equal to that of rigid containers, but this general statement is no longer applicable in all cases. Customer acceptance of the bag package has steadily improved. With the great improvements in strength and protective qualities that have been made during the war, the functional bag may be found to be the best all-around package for a great many products for which its use would not previously have been considered.



# **E** THERE'S AN *Evolution*

## **GOING ON IN PACKAGE-HANDLING, TOO**

● "What will they think up next?" you ask, incredulously, as you read about man-made harbors in the North Sea, air fields over seemingly unconquerable swamp land, torpedoes fired from planes—and a beam of electric current that goes hurtling off into space to bounce back from any encountered obstacle in a manner that makes it possible to determine its size, shape and location—and *its probable identity*.

There has been a *tremendous* evolution in the art of war . . . And there is another *evolution* going on in the mechanisms of peace . . . In packaging and package-handling, for instance, tomorrow's methods will need to be in the accelerated tempo of tomorrow's business. And business for some years to come is bound to reflect the heightened tempo of wartime planning, preparation and supply.

PACKOMATIC has played its part in the speeding-up and perfecting of packaging and package-handling for Global shipment. PACKOMATIC equipment has been perfected to

meet the rigid requirements for speed of package-filling: The durability of carton forming and sealing . . . The legibility and completeness of case-imprinting . . . And other exacting packaging and carton specifications born of war.

Now is the time for you to be checking your package-handling policies and methods against new developments in this important field. Your request for any specific recommendations and suggestions will incur no obligation whatever.

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Can be so treated that deposits become non-remeltable.

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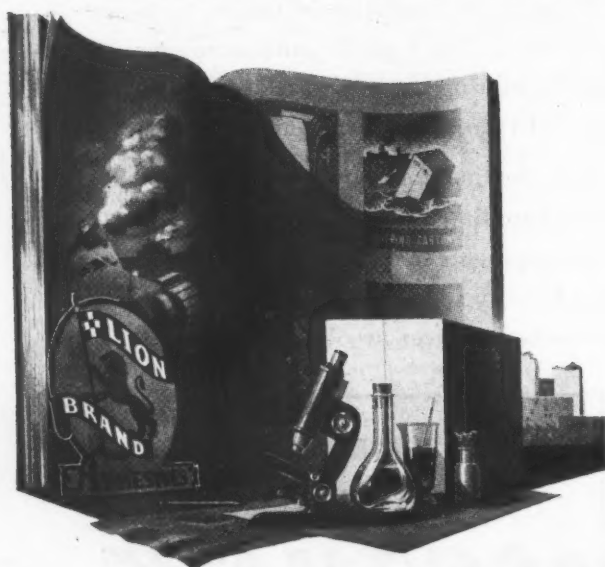
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## Specification buying . . .

(Continued from page 139) wadding (Kimpak) (Fig. 2), Type 500, 20 in. by 20 in., 50 ply, dimple embossed, 40-lb. kraft backed, of 10,000 sheets, is made to a customer. By previous agreement one important product attribute<sup>1</sup> (among others) is included and defined in the specification, viz.: Whether or not the backing paper is satisfactorily attached. Five per cent of the sheets in this shipment are known (by 100% inspection) to be defective<sup>2</sup> with respect to this attribute. For reasons not discussed here the inspection portion of the specifications requires the consumer to inspect 100 representative sheets ( $n$ )<sup>3</sup> for this attribute taken from the shipment or lot. Fig. 3 shows the distribution of sample fraction defective<sup>4</sup> which will be found in a series of samples size  $n = 100$  taken representatively from this lot. Statistics, such as sample fraction defective, seldom have the same value as the lot characteristic (parameter).<sup>5</sup> The specification limit or acceptance criteria was established by agreement for sample fraction defective ( $n = 100$ ) at .08. Fig. 4 shows that this creates a producer's risk for this lot of 7%, i.e., about 7% of sample  $n = 100$  will have a sample fraction defective greater than .08. If the consumer knows nothing about this particular shipment, a specification limit sample fraction defective .08 ( $n = 100$ ) operates to accept as many as 10% of lots submitted for inspection having a maximum lot fraction defective<sup>6</sup> of .13. Thus the consumer's risk of accepting lots having a true fraction defective greater than .13 is seen to be 10%.

The operating characteristics of this particular inspection specification are shown in Fig. 5. As the producer's process makes poorer goods the probability of their rejection increases as shown. As the quality deteriorates the probability of the consumer accepting the goods decreases as indicated. When the true lot fraction defective is .10, the producer's risk of having lots rejected is 67% and the consumer's risk of accepting is 33%. It is obvious that for any lot quality these risks must add to 100% since only the two possibilities exist, i.e., acceptance or rejection.

There are a few points of interest which should be made about the example. Inspecting a sample of size  $n = 100$  (generally considered a large sample) still yields sample statistics that are rather insensitive. In this particular case this insensitivity is justified, since the chosen attribute is relatively unimportant from a performance viewpoint. It is clear that this inspection specification merely provides the consumer with a modest barrier against gross quality deterioration. The example uses attribute theory; it could have used variables (measurements). In this instance much greater sensitivity would result from the use of smaller samples but difficulties of instrumentation and sampling would be introduced.

### Future trends

Industry's war experience has exposed it to specification buying and selling as never before. There is every reason to

<sup>1</sup> A quality characteristic regarded as either present or absent in the sample examined.

<sup>2</sup> When the backing paper attachment is poor the sample is defective.

<sup>3</sup> The number of sheets in the sample examined for the attribute in question.

<sup>4</sup>  $\frac{\text{Number sheets defective in sample}}{\text{Number sheets in sample}} = \text{sample fraction defective.}$

<sup>5</sup> The true lot fraction defective which is practically never known.

<sup>6</sup>  $\frac{\text{Number sheets defective in lot}}{\text{Number sheets in lot}} = \text{lot fraction defective.}$



# Outmoded... OUTDISTANCED

WAR-TIME improvements in packaging materials and techniques have paralleled the advances made in our methods of warfare.

Many prewar packages will become obsolete and outmoded as soon as sales competition returns. Now is a good time to call in OLD DOMINION'S creative and engineering staffs to modernize your packaging set-up.

## Blanket Boxes

THAT ARE DIFFERENT



## OLD DOMINION BOX COMPANY

CHARLOTTE, NORTH CAROLINA  
PLANTS IN TEN SOUTHERN CITIES

*Folding Cartons • Set-Up Boxes • Convolute • Spiral Wound and Corrugated Containers*

**"THE SOUTHERN BOXMAKER WITH A NATIONAL REPUTATION"**

New York Representatives, BAKER PRESS 228 East 45th St., New York 17, N. Y. Murray Hill 2-6492

# Hawaii

## PACIFIC PARADOX



A land of breath-taking beauty is one of America's fastest growing trade centers! ... It's true; the war has wrought an almost unbelievable change in Hawaii, and particularly in Honolulu. Manufacturers who once thought of our Pacific Paradise as but a tourist's delight can no longer ignore the present and post-war possibilities of this area! Retail sales in our community of a half million persons were a third of a billion dollars in 1943, increased 20% in 1944. ... Nearly every product used in the mainland United States has a market in Hawaii, U.S.A. Give your line a bright future in the Pacific by contacting R. A. Howe & Co. ... We are a long-established firm representing many leading products. Our personnel, warehousing facilities and showrooms are adequate. Let us tell you more about Hawaii and plans for distribution in the Central Pacific, China, the Philippines and East Indies.

**R.A. HOWE & CO.**



**Hawaii**

816 FORT STREET • HONOLULU, HAWAII • U. S. A.

believe that the trend will continue postwar. Many worthwhile benefits accrue to both producer and consumer of packaging materials when contracts are made on a specification basis.

Although all industry must be educated in the use of the necessary statistical tools before inspection specifications are widely used, nevertheless the time will come when efficient product quality specifications will be an integral part of all sales contracts.

### Bibliography

Managers' Manual of Statistical Methods, L. E. Simon, Wiley, 1941.

Sampling Inspection Tables, Dodge & Romig, Wiley, 1944.

Economic Control of Quality of Manufactured Product, W. A. Shewhart, Nostrand, 1931.

**CREDITS:** The technical data for this article have been specially prepared for MODERN PACKAGING, based on material given in a paper by R. A. Wolterding before the Chicago Packaging Club. Photos by Williams & Meyer, Chicago, courtesy of A. C. Lynch Corp., War Products Packaging Engineers, Blue Island, Ill.



### "Survival cellophane"

Crewmen call this specially developed moistureproof cellophane "survival cellophane" because it protects food, first aid material, signal flares, Very pistols, sulfa drugs, flash lights and similar articles on Pan-American Clipper life rafts from the effects of both moisture and deterioration.

Both compact and light-weight, it takes up little precious space. In addition, the new pack enables inspectors to see what's inside without tearing it open, and to check the contents at a glance.

**CREDIT:** Cellophane, Sylvania Industrial Corp.

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## **SURFACE DECORATIONS ON EVERY TYPE OF PACKAGE!**

*New Process Allows Integral Color  
Decoration of Plastics, Metal, Glass,  
Wood and other Surfaces*

Creative's package decoration is proved permanent in actual use by the leading names in American packaging. Scratch-proof, rub-proof, water and alcohol-proof decorations, trade-marks and designs on dials, bottles, plastic containers, etc. No limitation on colors or design.

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**Floquil FOUNTAIN MARKER**

FOR FAST • LOW COST MARKING  
OVER 1000 USES

*A Stroke and It's Done*

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**NO OTHER MARKER GIVES ALL THESE ADVANTAGES**

- ★ Marks clearly on any surface . . . wet or dry.
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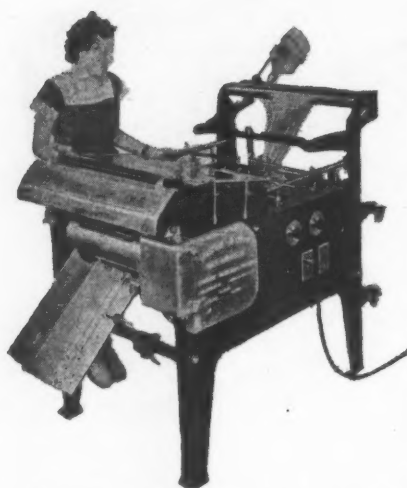
Only 3 Parts Nothing to Get Out of Order

Use Floquil Roller Marker and Floquil Plastic Stencils for smudgeless, sharper stenciling on any surface.

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Fast — Economical —  
New . . . .

Do you use bags in  
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It will pay you to look  
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to your present setup.

It costs nothing for full  
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Write today . . . .

## MOHAN CONTAINERS COMPANY

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## Bakery packaging . . .

(Continued from page 100) price of cellophane is reduced considerably. Also if existing facilities for producing cellophane are not sufficient to cover the demands of white bread output, it is safe to assume that the current and improved types of waxed paper will be used for this product for a long time to come.

### Package is your ambassador

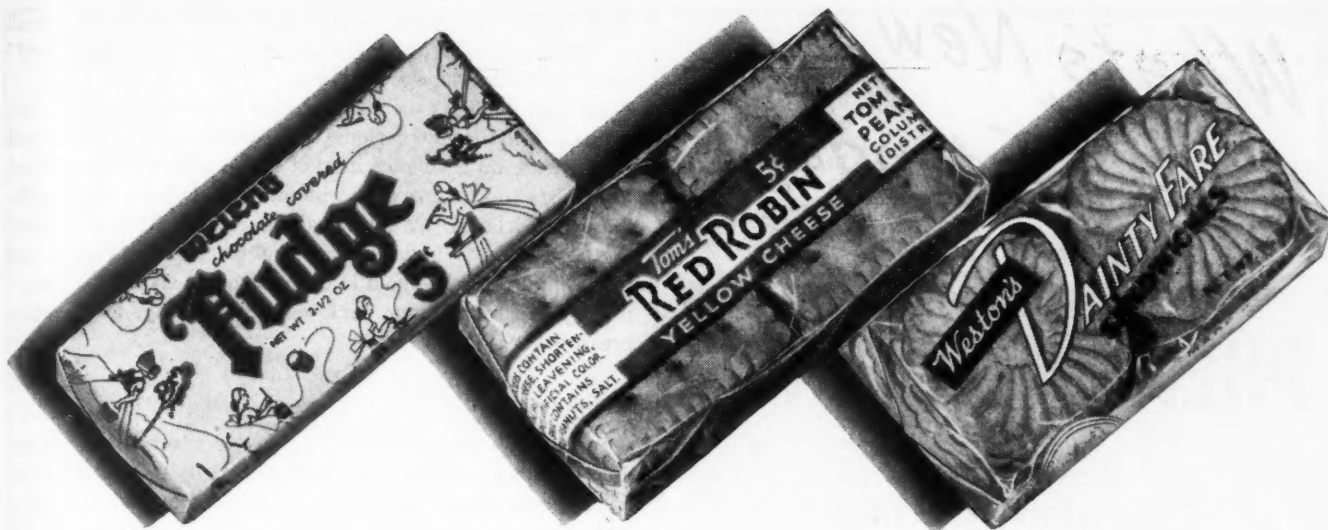
One may ask, then, what can a baker do to improve his package for white bread? First, he can make the design something that women will like and something that will be remembered.

A baker's package is his first and best ambassador as long as there is a slice of bread or a fraction of a cake in it. From the time a loaf of bread leaves the bakery until the last crumb is consumed the wrapper says John Smith's or John Jones bread—three times a day right on the housewife's kitchen shelf. If a woman likes that bread, she will remember it by the wrapper. If the wrapper is right, she will be attracted to it in the first place. That is why John Jones should design his bread wrappers with feminine appeal. Women are the people who buy it. Too often in the past, bread wrappers have been designed for attracting attention without much thought to their feminine appeal. Too often in the past, the colors have not been selected with proper consideration of the colors women like best. More emphasis has been given to physical problems such as buildings and shops, types of ovens or delivery trucks than to how the package looked. Bakers are realizing that groups of women should be consulted for their preferences before a final wrapper is selected. It's not difficult to ask a representative women's club group to do this. It flatters them to be consulted on such problems. More designs are going to be made from this standpoint in the future—and bread wrappers are going to be more feminine and less garish.

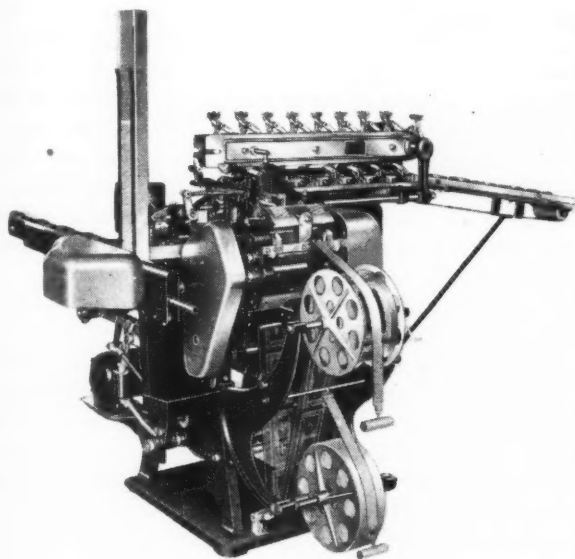
### Design trends

Current trend is toward pictorial design—a picture that tells some story about the bread. For some years bread packages generally have featured large blocks of color, geometric treatments, such as circles and swirls, to give movement. Now movement is also being attained by models of children, kitchen activities and domestic subjects. Good illustrations of such subjects as foods with which bread can be served are also popular to tie in bread sales with impulse items. Considerable attention will be given to lettering and to ink coverage which will enhance the appearance of printed design. More attention must be paid to inclusion of regulatory informative copy, such as vitamin content, weight, ingredients, price, etc. More attention will be given to the feasibility of small loaves and small packages for apartment trade in urban centers.

When the right package is selected, it should be dramatized by every means the baker has at his disposal. One of the reasons for the continued success of the Ward Tip-Top package is the wonderful broadsides which dramatize the package with the most realistic third dimensional effect. Continental baking for 20 years has continued to dramatize its Wonder Bread package containing the multi-color balloons. The illustrations on these pages show the evolution of the Wonder Bread wrapper and how its identity has been retained throughout the years, while the package design has



## Fine Packaging . . . for Fine Quality Products



### WRAP-O-MATIC PACKAGING EQUIPMENT

For wrapping candy bars, biscuits, and cookies. Wrap-O-Matic is the most popular Wrapping machine in the Confectionery and Bakery field . . . a real tribute to the flawless wrapping by Wrap-O-Matic.

**F**INE PACKAGING of candy bars, biscuits and cookies, regardless of shape or texture, bespeaking of the *fine* quality within . . . dressed with neat, trim, streamlined appearance that carries extra eye and sales appeal . . . *that's WRAP-O-MATIC.*

Wrap-O-Matics are economical too . . . they reduce wrapping labor costs as much as 75% and wrapping material costs as much as 35%, plus high speed wrapping up to 120 units per minute. Fragile or irregular shaped items are successfully wrapped as the ingenious Wrap-O-Matic wrapping exerts no pressure on the products.

Plan *now* to streamline your wrapping operations . . . have our engineers survey your packaging department and show you how Wrap-O-Matic can increase your Wrapping production with greatly reduced labor and material costs. Also write for a copy of our illustrated brochure and more details.

**WRAP-O-MATIC**  
*Lynch*  
DIVISION

**Manufacturing Corporation, Defiance, Ohio  
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# What's New at Watson-Standard

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P-9381

*A thermo setting black*  
**PROTECTIVE COATING**



**resists solvents**

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★A thermo-setting oil free Phenolic resin finish, especially adapted to applications requiring Coating prior to fabrication.

A modern protective coating for closures, screw caps and other metal stampings. P-9381 displays resistance to acids, alkalies, oils, greases, alcohol and many solvents and chemicals.

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been more and more refined for added feminine appeal. "But what can I do to compete with the wholesale baker?" says the local independent baker.

First, he can have a package design that is equal to and may even excel that of the national distributor. Second, he should concentrate on a smaller market area and not try to spread his efforts too thin over a wide area that means costly distribution. Third, by sales training he should use the boot strap methods to build a strong fighting team. Fourth and most important, he should concentrate on specialty items—not try to run neck and neck with the big guys in the white bread field.

### Variety appeal

Practically every consumer survey in the baking field indicates that the people who eat baked goods and who shop for baked goods want variety of taste and eye appeal. A study made on this subject by DuPont shows that 81.9% of the bread market changes to different kinds of bread from time to time. Those interviewed mentioned 38 different kinds of breads they changed to occasionally. More than 92% of the market that likes a change in taste for variety sake, eats three different kinds of bread regularly and 59% have five different changes on their tables from time to time.

The whole idea of the sensational new bakery departments in A & P stores is predicated on the idea of variety. The independent baker who concentrates on a few specialty items need not fear so much the competition from other bakers. A 25-cent loaf of specialty bread can be a success overnight. A company like S. B. Thomas Co. has been successful for years because of its English muffins and specialty breads. There's a wonderful opportunity, for instance, to make home-made pies in the Metropolitan New York area. Outside of the retail bakers nobody has done this on a large specialty basis.

Another big field is the small 5-cent package of cup cakes or pie. These will be sold in many places on candy counters and snack bars. New outlets will be automobile service stations which will be enviable for selling foods from vending machines.\*

The independent baker has the aid of several cooperative buying groups such as Quality Bakers of America which is doing an aggressive job for its members. Among new services in both advertising and packaging is the project which J. Franklin Dorsey, formerly with Milprint, is heading up with the Essig Co., Ltd. A whole campaign is being planned by this advertising agency to help the independent baker with his advertising and packaging programs—to give him the help he needs at a price he can pay for it, and making copy, artwork, layout, display material, package styling and design, merchandising plans, market studies, etc., available to one independent baker in a trading area.

An excellent example of what has been done in another branch of the baking industry is the activity of the Doughnut Corp. of America. This organization sells doughnut mix to bakers throughout the country. To sell such a product and keep it sold has meant a complete educational program to sell the public on eating doughnuts. Doughnut Corp. operates the Mayflower Doughnut Shops as a part of this sustained promotional plan. The corporation also does considerable work in assisting users of its product with the designing of the proper packaging for doughnuts. As a result, 80% of the doughnuts sold are packaged. About 80% of those packaged are sold in what amounts to almost a standard type of grease-proof cellophane window carton in various sizes. The other

\* See "A Million Dollar Idea," MODERN PACKAGING, August 1944, p. 88.

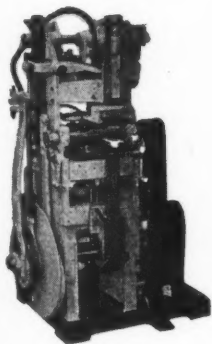


Uncle Sam says:



According to  
Revocation of Order L.332

## You don't need Priority for LABELRITES on these products



There is every reason to feel that there will be an even greater demand for LABELRITES now that **more** manufacturers qualify for the opportunity of getting LABELRITES to handle this important packaging function. Precise register, with neater, **faster** labeling via LABELRITES saves you both time and money.

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For small runs, the New Jersey Table Gummer is ideal. Substantially built for long wear, it includes many features that are to be found in the full-size Labelrites. **Ask about them.**



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transports, by gravity, packages, cartons, cases, etc., to and from production lines, storage, loading docks. Convenient to carry from place to place where needed. Easily, quickly set up and coupled to any length, thru exclusive "Quick-Eez" coupling feature.

In standard 10' and 5' sections; straight and curved. Wheels are free-running, full ball-bearing. Sturdy stands are adjustable in height. Mobile units, straight and curved, mounted on swivel casters, are available.

Write for  
Bulletin  
10

**THE E. W. BUSCHMAN CO., Inc.**  
435 New Street . . . . . Cincinnati 2, Ohio



**Filma-Seal**  
CAP AND SEAL APPLIED AS ONE

With milk fortifiers or other glassed products maintaining quality depends on the way those products react on the dealer's shelves. Moisture or air ingress, leakage, store sampling or tampering may ruin your product and reputation at the same time. Check Filma-Seal\* . . . the cap with the inner seal that provides *double* protection — double safety. Cap and seal are applied as *one*.

**FERDINAND Gultmann & COMPANY**  
SINCE 1920  
\*Reg. U. S. Pat. Off. and abroad  
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10% of output is packaged in cellophane-wrapped trays and these are sold mostly on the West Coast. Only 10% of the doughnuts are sold unpackaged. Doughnut Corp. wants to know, though, how to get more visibility in a doughnut carton without sacrificing structural qualities. It also wants automatic wrapping machines for doughnuts.

### Influence of women

One essential point that should never be lost sight of in packaging for the bakery field is the importance of the woman shopper. Bakers are men and sometimes apt to minimize this advantage. Women like variety in their shopping. They are attracted to baked goods that look and taste like what they think they create at home. They want to see what they are buying. If they can't see it, they want it in a package that appeals to them in color and design. They are impressed by the dramatic; they will pay a lot for what they like when they have the money; they are shrewd and cautious buyers when they haven't. Remember A & P went after the answers to their desires. Whether the future means tough or easy going after the war, the package is one of the most forceful tools of distribution and merchandising. Use it to give the ladies what they like.

### Acknowledgments

In addition to sources already mentioned in this article, we express our appreciation to the following for their special assistance in supplying information and illustrative matter: E. I. duPont de Nemours & Co. Inc., Wilmington, Del.; Milprint, Inc., Milwaukee, Wis.; Marathon Corp., Menasha, Wis.; Nashua Gummed and Coated Paper Co., Nashua, N. H.; Sylvania Industrial Corp., New York; Riegel Paper Corp., New York; *Baker's Helper*, Chicago; *Baker's Weekly*, New York, N. Y.; Package Advertising Co., New York, N. Y.

### About Order M-81

J. A. Krug, chairman of the WPB, announced recently that in order to assure an adequate supply of seasonal and perishable food cans in the face of the steel shortage and the pressure of increased military orders for cans, can manufacturers must observe strictly the manufacturing preference clause of Order M-81.

This clause, paragraph (e) of Order M-81, requires each manufacturer to accept first, and treat as if rated AA-5, any orders for cans for specified food products, cans for direct military requirements and cans for certain biologicals, drugs and medicinals.

Direction 8 to the order states that regardless of priorities regulation 1, a "requirements contract" for any of the three classes of cans listed in paragraph (e) must be regarded by the can manufacturer as an "order" calling for the delivery of cans in the quantities and at the times he reasonably anticipates under the contract.

In addition, plate may not be ordered for products not listed in Schedule A of the order and for a long list of specified food products and non-food products which are listed.

FOR YOUR POST WAR PACKAGING

# HEEKIN CANS

FOR POST WAR DELIVERY... ANY SHAPE • ANY  
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BEAUTIFULLY LITHOGRAPHED  
EXPERTLY FABRICATED

*Fine Metal Lithography*

*with lasting colors*

THE HEEKIN CAN CO., CINCINNATI 2, OHIO

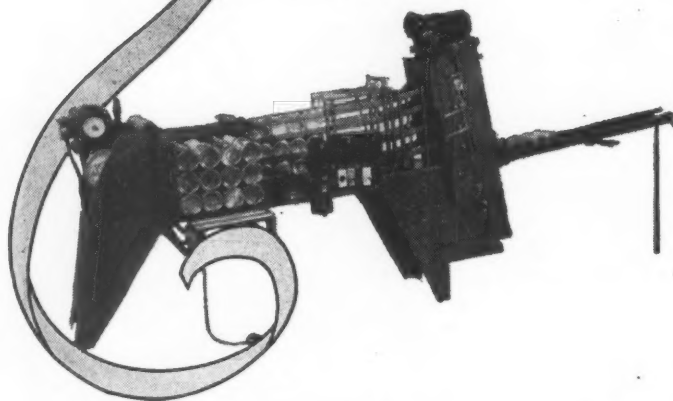
## New Way EQUIPMENT BY CRCO



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CRCO - New WAY Single - Tier and Double - Tier Casers and Boxers will operate at high speed without mechanical troubles. Can be equipped for right, left or both side delivery. Every CRCO-New Way Caser is precision built to give years of trouble-free service.

Consult Your  
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When you are planning your line, let CRCO-New Way engineers make recommendations covering labeling and casing operations. Then you will have dependable equipment which will meet any requirement.

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THE BEST OF Everything FOR THE FOOD PROCESSOR

## New strip coat specs

Members of the Industrial Packaging Engineers Assn. of America at their March meeting in Chicago were given a preview of specifications now being written to supersede those covering ethylcellulose strip coatings for spare ordnance parts.

Details of the revised requirements, scheduled for early release as a joint Army-Navy specification, were interpreted by Dr. C. E. Waring, of the Frigidaire Corp., Dayton, and special consultant to the Office of Chief of Ordnance. Background information was supplied by Herbert T. Holbrook, assistant chief of the Packaging Section of OCO, whose remarks were supplemented by representatives of the Navy Dept., the Corps of Engineers and other services.

As outlined by Dr. Waring, the new specifications will not be confined to ethylcellulose but will be based on two types of materials—a "reasonable facsimile" of current ethylcellulose strip coating compounds, to be known as Type 1, and cellulose acetate butyrate, designated as Type 2, which recent research has demonstrated to have a number of acceptable qualities for hot dip packaging. The speaker emphasized that the specifications will not limit the method to ethylcellulose or cellulose acetate butyrate formulations, but will hinge principally on performance and are expected to encourage further research along these lines with other promising materials.

### Desirable properties

Pointing out that "strip-ability" is the primary index to the value of hot dip coatings, Dr. Waring listed the following among the desirable properties of cellulose acetate butyrate for this type of packaging: 1) Satisfactory application at lower dipping temperatures than those used with ethylcellulose; 2) improved strip-ability from irregularly shaped parts; 3) greater elasticity; 4) higher plasticity and resistance to "cut through"; 5) superior resistance to prolonged heating without becoming brittle; 6) greater ease of identifying the coated part, since this material remains transparent in humid atmospheres, permitting the identification to show through the coatings.

Among disadvantages of cellulose acetate butyrate formulations are the longer drying period required and their tendency to drip and "string" before hardening, particularly on parts having a small mass.

### Typical applications

Piston rings, machine gun parts and other items were exhibited by Dr. Waring to show typical applications of the hot dip method and to demonstrate basic differences in characteristics of the two types of coatings. Although the method has not proved practicable for ball bearings and some irregularly shaped parts, because of the difficulty of stripping the coating in the field, recent research gives promise of broader application in such cases.

Ready stripping of the part can usually be attained by wrapping the part in Grade A paper and cloth before the dipping operation, the speaker stated. Use of metal foil wrapping with an over-coating of hot dip compound is also regarded as a possibility for Method II packaging incorporating a desiccant.

# "Juvenile Jam Session"

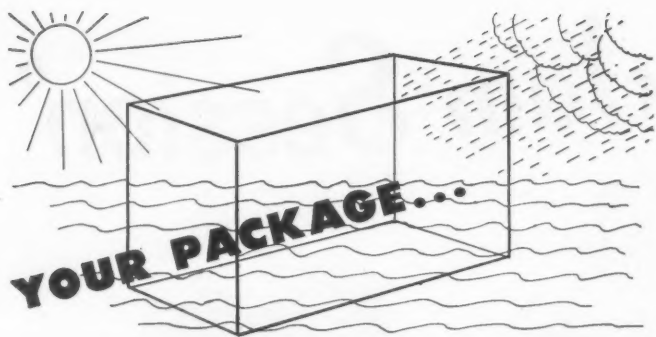


With healthy, happy youngsters there are lots of times when "eating's more fun than anything." No need for fancy dishes to tempt those robust appetites. Bread and preserves make a royal feast . . . especially when the preserves are as tasty as Del Monte De Luxe Plum.

In millions of homes throughout America, Del Monte Foods need no introduction. Prepared and distributed by the California Packing Corporation, Del Monte Preserves are one of a number of Del Monte glass packed products on which Crown Screw Caps are used. An exclusive feature—the Deep Hook Thread—gives this cap 50% to 100% more sealing pressure with the same amount of application force. Crown Cork & Seal Co., Baltimore 3, Md. *World's Largest Makers of Metal Closures.*



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★ You who supply food, drugs, parts, chemicals—or other packaged materials—to the Armed Forces or to Lend Lease, may find one of NATIONAL CASEIN'S approved Waterproof Adhesives worth consideration and test.

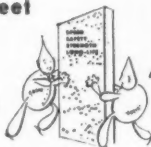
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Our laboratory will welcome your problems

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## Whither package design...

(Continued from page 91) that there will be a swing away from all those characteristics of packaging which associated themselves with the war and that the various technologies released for peaceful industry will introduce new values and functions in packages.

C. O. WOODBURY—There will be many new and flexible materials in the market hat, allied with color, type and pictures, should make our packaging of tomorrow a most brilliant contribution.

ROBERT GRUEN—I believe that good package design in such fields as foods, drugs and cosmetics will greatly affect the public taste in the selection of furniture, fabrics and accessories—in fact everything for the household and office. Perhaps packaging can be one of the greatest influences for good—or bad—that exists.

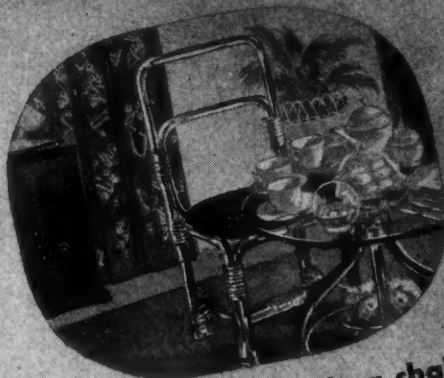
EGMONT ARENS—It isn't what people *think* about a package that counts, it is what they actually *do* under selling conditions.

DONALD BEST—There is the possibility that this postwar design and color will not be pleasing to everyone. There were those who decried old-fashioned designs. There were those who decried modernistic design. There were those who decried any change that was ever made. And they will be with us again.



### Something for the boys

Next to his best girl, the G.I. probably misses his hamburger the most. Latest additions to the "10-in-1" ration are these cans each holding two of the luscious delicacies all salted, peppered and charcoal broiled for flavor. The familiar weatherproof, damageproof tin can does the transportation job and can be used to heat the hamburgers in the foxholes. When the war is over grocers' shelves are expected to hold tinned hamburgers for the American housewife's convenience.

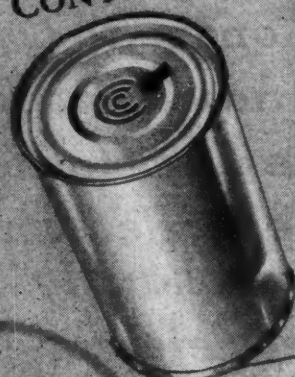


Fibre drums that can "take it".....Plastics for modern chairs



Handy pails for lubricants.....And cans for plums and pears

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N.J. - Plastic Division, Cambridge, Ohio  
Toots Crown & Cork Co., Wilmington, Del.  
Continental Can Machinery Co., Chicago, Ill.

FOREIGN SUBSIDIARIES: Continental Can Company of Canada, Limited, Sun Life Building, Montreal, Canada - Sociedad Industrial de Cuba, S. A., Havana, Cuba.

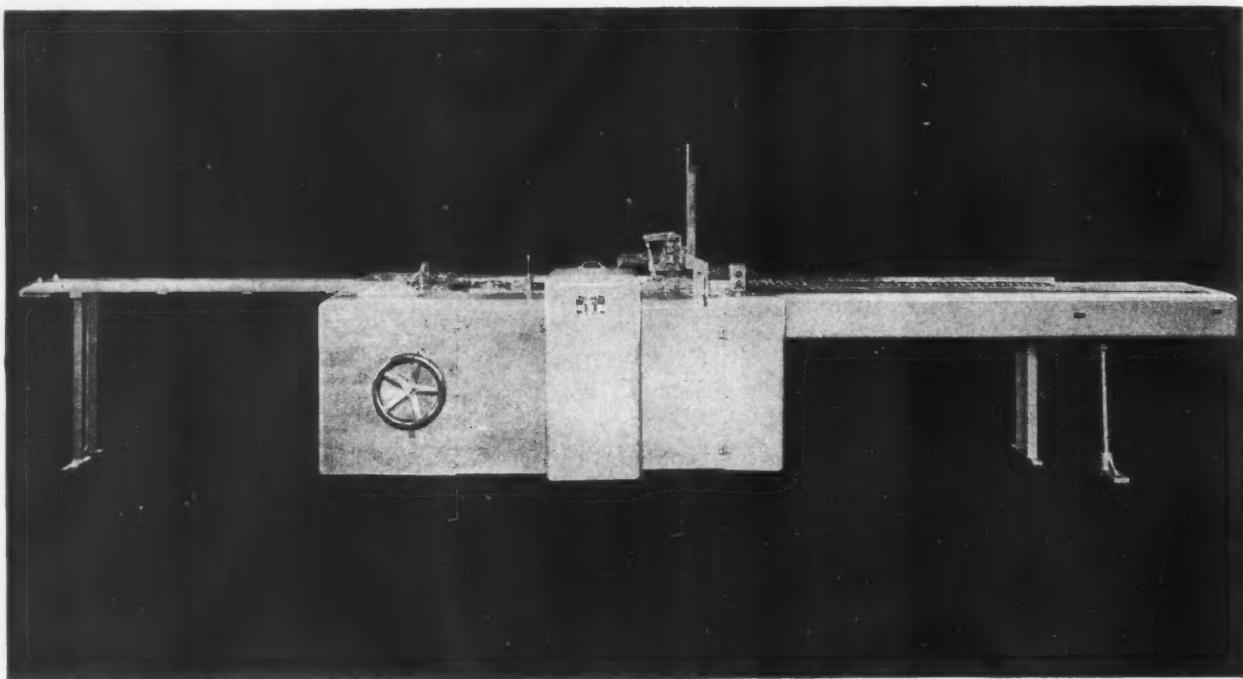
...we're a can company! But we're  
a paper container company, a fibre  
drum company, a crown cap company  
and a plastic company, too!  
In fact, we're a company that's  
ready to supply you with practically  
everything in packaging and plastic  
products.  
And though almost 20% of our men  
and women are now in the armed  
forces, this is steadily going on. That's  
why, when you hear in war is won, too suggest  
products, you're on Continental and  
you know Continental trademark, too.  
You're getting the Triple-C mark and  
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★ ★ SALVAGE EVERY CAN ★ ★

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HERE'S ANOTHER IN CONTINENTAL'S  
snappy series of ads which show you at  
a glance the amazing variety of articles  
now Continental-made. Every ad shows  
exactly how Continental's increased  
facilities can bring you better all-round  
packaging service than you ever had  
before. Look for these ads running

full-color in leading national magazines  
—Time, Newsweek, U. S. News, Business  
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for one company with one policy—to  
give you only the very best in quality  
and service.



If you want to select the most **PROFITABLE** cartoning machine to package your product, ask these basic questions:

*How is the flat carton fed from the magazine and opened?*

*How is the article loaded into the carton?*

*How are the flaps tucked or glued?*

*How are the leaflet, corrugated liner, and other inserts handled?*

*The answers determine the overall efficiency of the cartoning machine.*

Send us samples of your package. We will show you by actual demonstration, picture or blueprint, exactly how we perform these operations. You will see clearly how your product can be cartoned faster, more smoothly, and more profitably with a  
**JONES CONSTANT MOTION CARTONER**



**R. A. JONES & COMPANY, INC.**

P. O. BOX 496

CINCINNATI, OHIO

# NEW 1945 PACKAGING CATALOG

## POINTS TOWARD COMPETITIVE MARKETS

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Bigger, better, more useful and more vital than ever before, new 1945 PACKAGING CATALOG will point the way toward the return to competitive markets. More than ever this book will be a *must* for every packager of every product, civilian and military—a handbook to help you through shortages toward competitive markets.

Outstanding among the new information will be an important symposium by the leading packaging designers of the day: "Trends in Package Design." This important contribution, which will stimulate your thinking on the latest design trends, will be illustrated with natural color photographs.

An important symposium by four leading package development engineers from four packaging industries—drugs and pharmaceuticals, food products, toiletries and cosmetics, photographic supplies—is called, "What's Ahead in Materials." Other standout material includes articles on the newest reproduction techniques and the latest developments in inks. An important article, "What To Tell Your

Box Supplier," will help all packagers using this type of container in their dealings with manufacturers.

An entire new section on decorative packaging implements the editors' viewpoint that before the year is out, decorative packaging will form an important part of the packaging picture. The new specialty flexible containers, metal foil packages, cosmetic packages and other new developments will be found in the section on packages and envelopes.

The latest developments in shipping will be covered in the articles, "Veneered Packages," "Packaging of Metal Parts," "Marking of Shipments." Displays and Merchandising Principles will be expanded to include material on "New Structures for Paper Displays," "The Dealer Factor in Displays," "Fitting Displays to the Sales Spot," "Displays Will Be Lighted Again."

The famed packaging directory has been completely re-checked for accuracy. The new 1944 classification system has been retained and more sources of supply have been added.

PRICE **\$4.00** PER COPY IN THE UNITED STATES

**PACKAGING CATALOG CORPORATION**

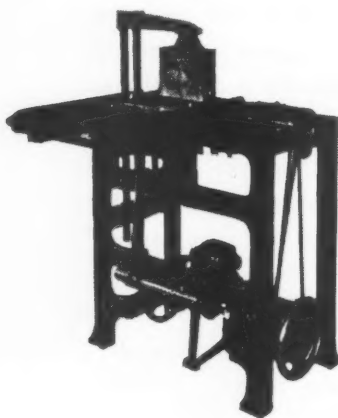
122 E. 42nd STREET, NEW YORK 17, N. Y.

# SAVE "HAND POWER" for work MACHINES CAN'T DO!

Today some plants are still using expensive hand-labor to set up and close the cartons for their product, when these operations could be done faster and more profitably by machines. This "hand-power" should be doing other work in the plant which cannot be done by machinery.

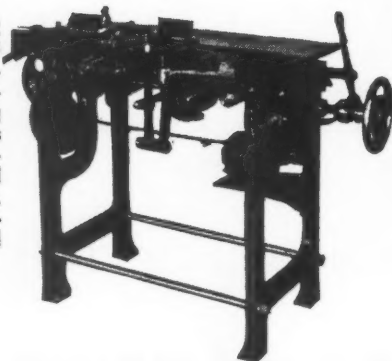
If your cartoning is still being done by hand you will be interested in learning how PETERS economical machines have helped others make substantial reductions in packaging costs and increased their overall profit. These PETERS machines, which provide automatic or semi-automatic set-up and closing, will release many of your present personnel for other necessary work.

A sample of each size carton you are now using will bring our recommendations promptly. Action on this matter now may save costly delay later as PETERS expects to make deliveries in the same sequence orders are received.



This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35-40 cartons per minute, requiring only one operator. After the cartons are set up, they drop onto a conveyor where they are carried to be filled. If several size cartons are desired to be handled, machine can be made adjustable.

This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35-40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to handle several different size cartons.



**PETERS MACHINERY COMPANY**  
GENERAL OFFICE AND FACTORY  
4700 RAVENSWOOD AVENUE, CHICAGO, ILL.



*\* Laminated foil  
wrap now protecting  
all manner of war  
material in transit.*

**ACME  
BACKING CORP.**  
MEADOW & BOGART STS.  
BROOKLYN 6, NEW YORK

Mrs. of  
Approved  
Moisture Vapor  
Barrier, Officially  
Specified as VALLEY,  
for Method IA & II  
Packaging

# ...So now you squeeze wood from a tube



PLASTIC WOOD didn't always come in a tube. Used to come in cans only.

Which was pretty discouraging for the average householder, who used the product only occasionally. For contents of the can would often dry out between uses.

What was needed was a small airtight container. One that could be easily opened and closed without exposing much of the contents to evaporation.

Which is what brought the Plastic Wood people to our door. Since Sun Tube has turned out more than one billion tubes and pioneered many

new uses, it was felt that we might work out a satisfactory container.

We did. Today... as a result of putting wood in a tube... Plastic Wood sales to the occasional user have increased enormously!

## What this means to you

There may be a closer connection than you think between this packaging problem and the one *you* face—now or postwar.

Because the Plastic Wood story is simply typical of the many unusual packaging problems we have helped to solve through the use of Sun Tubes.

Now, you probably know the ad-

vantages of the collapsible tube. The fact that it's convenient and compact, that it's germ-proof and light-proof. That the collapsible tube is virtually unbreakable, and that contents won't dry out in use.

What you may *not* know is that new developments have made Sun Tube the ideal container for many products not formerly considered even prospects for a tube.

Maybe yours is one of them. At any rate, the Sun Tube representative nearest you will be glad to furnish you with information and advice. Won't you give him a ring or drop him a card today?

## SUN TUBE CORPORATION

*Hillside, New Jersey*

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M. P. Yates  
Arcade Building

ST. PAUL 1, MINN.  
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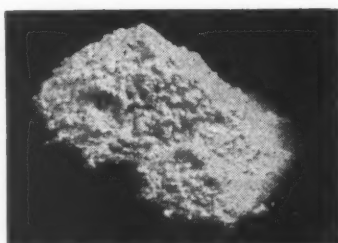
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Sales Punch with**

***Flock***

*produces  
strikingly  
accurate  
simulations  
of*



**SUEDE, VELVET, VELOUR**

The flock-surfaced package is as stand-out as a fur coat above a cloth coat. At amazingly small cost, flock converts ordinary paper into a product with the luxurious look and feel of genuine suede leather, velvet, velour and other pile fabrics. For boxes, presentation display containers, it is a true sales force. Highly desirable for souvenir books, menu covers, etc., etc. Available in all sorts of colors and effects. Can be used for design printing as well as over-all surfacing.

*Request samples and prices.*

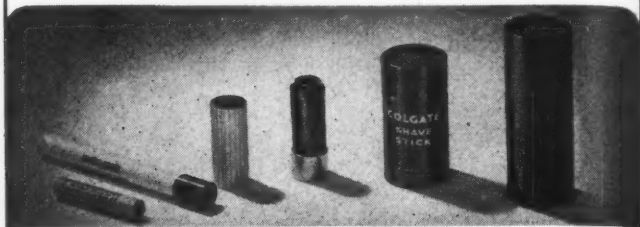
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MANUFACTURERS OF PAPER TUBE CONTAINERS

## FUNCTIONAL PACKAGES for *War and Post War*

The engineering experiences of war have developed smart new packages for post-war times.



**attractive • weight-saving**

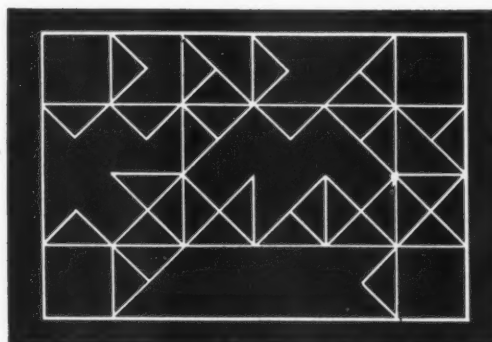
Our long experience in the fiber tube industry has given us the "Know-how" to interpret post-war containers. Consult us on your packaging problems.

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**How would you solve it?**



**This represents a packing problem**

In a pack of cans arranged 6x4 there are three long and five short contact planes where damage might occur. Our tests show that fibreboard partitions placed along two of these planes eliminate 90% of this damage. Perhaps we can help you save money by applying impartial, scientific tests to your shipping and packing problems.

**CONTAINER TESTING LABORATORIES, INC.**  
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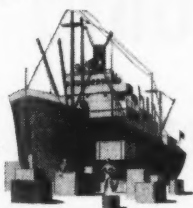
# STENCILED SHIPMENTS INSURE FAST HANDLING

## STENCIL MARK YOUR SHIPMENTS

CLEAR, EASILY READ, PERMANENT STENCILED ADDRESSED SHIPMENTS move through the Shipping Room faster and are speeded all along in transit.

THESE NEW DIAGRAPH-BRADLEY FOUNTAIN STENCIL BRUSHES... each represent major advancements in stencil brush design and efficiency... featuring: STURDY ALUMINUM CONSTRUCTION • LIGHT WEIGHT • LARGE FENDER GUARD to prevent ink on bristles getting on table, clothing, etc. • LARGE INK CAPACITY • ALWAYS READY FOR USE. THE PENACTION FEED\* operates like a fountain pen • THE SIDE BUTTON STREAMLINER\* is controlled by a diaphragm valve • CAN'T LEAK.

\*Pat. App. For



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  - D-B FOUNTAIN STENCIL BRUSHES
  - D-B FOUNTAIN MARKING PENCILS
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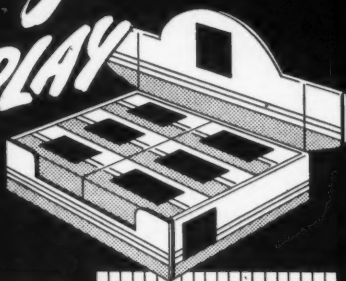
Railroads and Truckers now recommend STENCILING. See: Revised Marking Rule No. 6 revised to include the following "Each package must be stenciled or otherwise plainly marked."

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STENCIL MACHINES  
NO. 84 DIAGRAPH-BRADLEY BUILDING  
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Distributors in Principal Cities  
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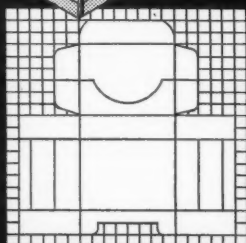
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for DISPLAY*



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DISPLAY  
CONTAINERS



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IN 332 DAYS WITH THIS

*Doughboy* ROTARY HOT KRIMP *Sealer*

The Doughboy Sealer (illustrated) has been in continuous use under usual assembly conditions. It has sealed more than 10,000,000 bags and is still in excellent condition being operated 16 hours each day. The total cost of replacements during this period has been \$35.85. This again proves the economy and efficiency of the Doughboy Sealer.

REGULAR MODEL, for cellophane and light materials.....\$199.50  
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Heat roll and pre-heater separately controlled.

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8-inch Jaws 10-inch Jaws  
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*Manufacturers of* CORRUGATED PAPER PRODUCTS

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*This brochure should cause you to pause and ponder over the possibility of improving your product or package. Those who have applied the Clearseal principle in practical fashion are enthusiastic in their praises. The Clearseal process is modern and extraordinary. It assures exceptional appearance, longer service and definite consumer interest. It makes a package moisture-vapor proof. It adds to the value of both package and contents. It gives strength, lustre and character to paper or fabric.*

**CLEAVELAND**

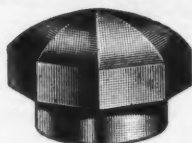
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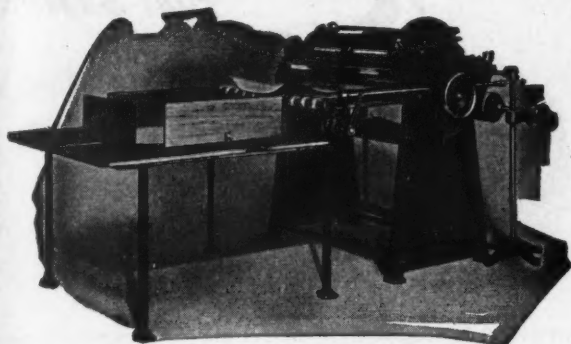
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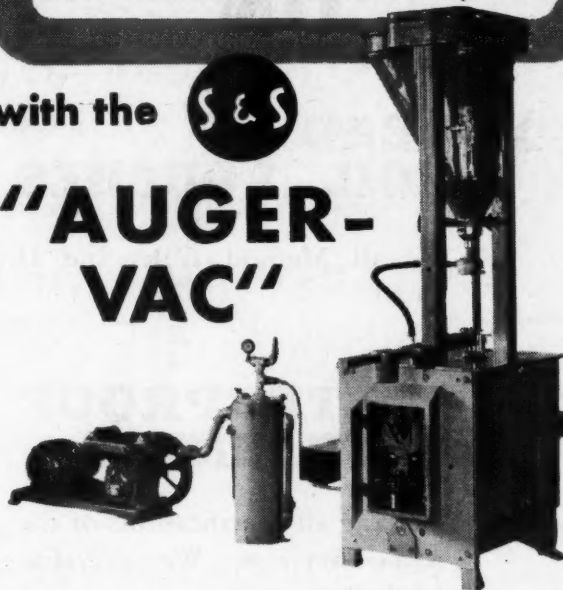
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**POWDERED MILK, COCOA  
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with the **S & S**

**"AUGER-  
VAC"**



For filling such powders as powdered milk, cocoa, dehydrated foods, chemicals, cosmetics and many others that require some packing to fill a container, the Stokes and Smith Co. developed combination vacuum-auger method has been tried and enthusiastically approved by many manufacturers.

This method combines the advantages of auger feed for speed and accuracy and of the vacuum method of filling without dust. Tin cans, glass jars or fibre containers may be used provided they are air-tight to hold a vacuum.

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**FILLING • PACKAGING • WRAPPING MACHINES**

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*Better machines for better packages*



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THE TANGLEFOOT CO., 405 Straight St., Grand Rapids 4, Mich.



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For Wrapping & Bagging . . Grease-proof . . Moisture-proof . . Water-proof . . Sealability

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—NOT ENOUGH SPACE?

—NOT ENOUGH EQUIPMENT?

—NOT ENOUGH MANPOWER?

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If you have a packaging problem—if you need more space or more equipment or more manpower—our custom packaging service will probably answer your requirements.

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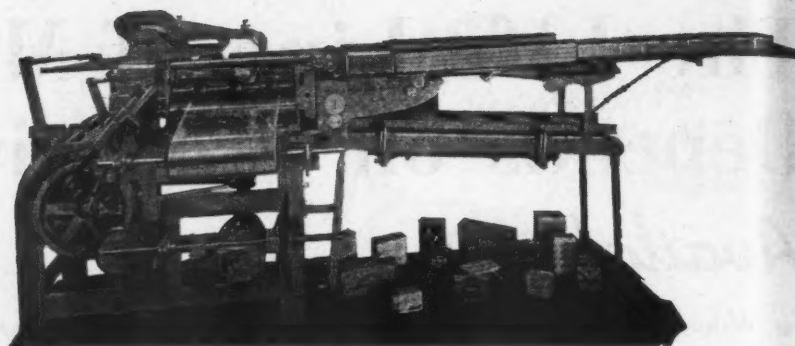
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# FOREMOST



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THE WAR'S STILL ON  
★  
BUY MORE BONDS  
AND KEEP THEM  
★

Coordination of effort, both physical and mechanical, is an indispensable requirement of steady, speedy production. Breakdowns anywhere along the line are costly. And, in the post-war era, when war orders are a thing of the past and every plant is on its own, competition will insist on a closer scrutiny of means and methods, so that we can produce more for less. The Hayssen Wrapping Machine has an enviable record for dependable, low-cost wrapping service. Investigate its merits now. Full information is available . . . without obligation, of course.

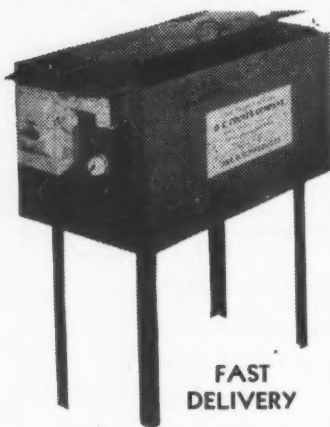
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**WAX**—Meets Government Specifications AXS 1015

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Specially designed for heating Ethyl.  
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Describes latest methods for re-  
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wax and clean metals faster, cheaper  
and safer. Lists scarce materials now  
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I want you to send me free bulletin giving information on cleaning, rust removing, etc.

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Means Sales-Appeal*

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**BOX and SPECIALTY  
PAPERS**

*That Add Distinction To  
Quality Merchandise*

Your product looks better — sells  
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box or specialty paper.

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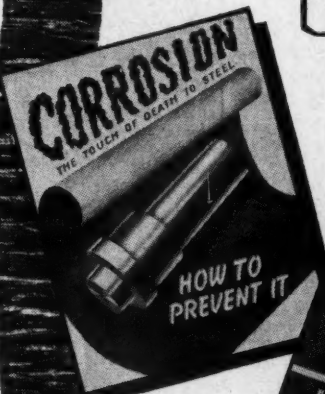
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THERE will be more of them used after the war period. • We build highspeed, towel roll winders, interfolders and embossers. Printers and sheeters for your label problems. • Specifications and prices mailed you on request.

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OF FRAMINGHAM

50th Anniversary  
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**ANGIER CORPORATION**  
CORROSION PREVENTIVE AND WATERPROOF PAPERS  
FRAMINGHAM, MASSACHUSETTS



**DO YOUR POST-WAR**  
*Window Shopping NOW*

**Your Product will have  
a Brighter Future  
in LUSTEROID VIALS and TUBES**

In planning your post-war packaging, it will pay you to look into the advantages of LUSTEROID.

These smart, crystal-clear containers are feather-light, yet strong, rigid and unbreakable. They provide product display along with protection for perfect merchandising.

LUSTEROID vials and tubes come in all colors of the rainbow—clear or opaque. They are printable, thus eliminating labels and cost of affixing them. No protective packing is required and the savings in shipping, etc., can well cover the cost of your packaging program.

Sizes range from  $\frac{1}{4}$ " to  $1\frac{1}{4}$ " in diameter and lengths up to 6". Cork, slip-on or screw-cap closures.

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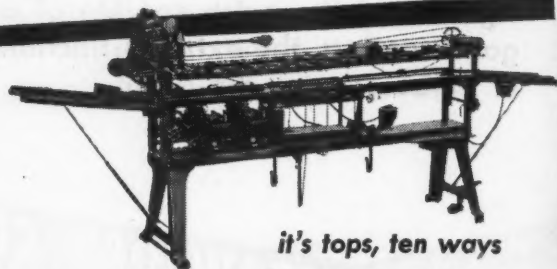
Formerly Lusteroid Division of Sillcocks-Miller Company

Office and Factory

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**A PLANT Modernization PROGRAM**

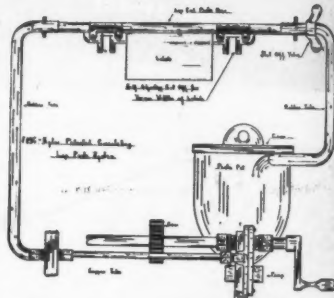
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is proud to put its name  
on the famous  
Kyler Labeler & Kyler Boxer*



*it's tops, ten ways*  
**the FMC-KYLER LABELER**

**10 Outstanding Features**

- Circulating Lap-End Pasting System—automatically adjusts to any width label used
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- Automatic Control—no jamming in discharge chute
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Circulating Lap-End Pasting System

**the FMC-KYLER BOXER**



Motor Driven FMC-Kyler Boxer

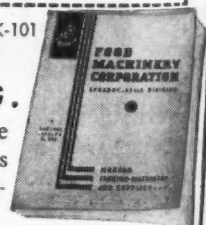
Motor driven or hand operated. Maximum speed with minimum man-power and floor space.

**BRAND NEW FMC CATALOG.**

contains full details of these new additions to FMC's complete line of food processing equipment.



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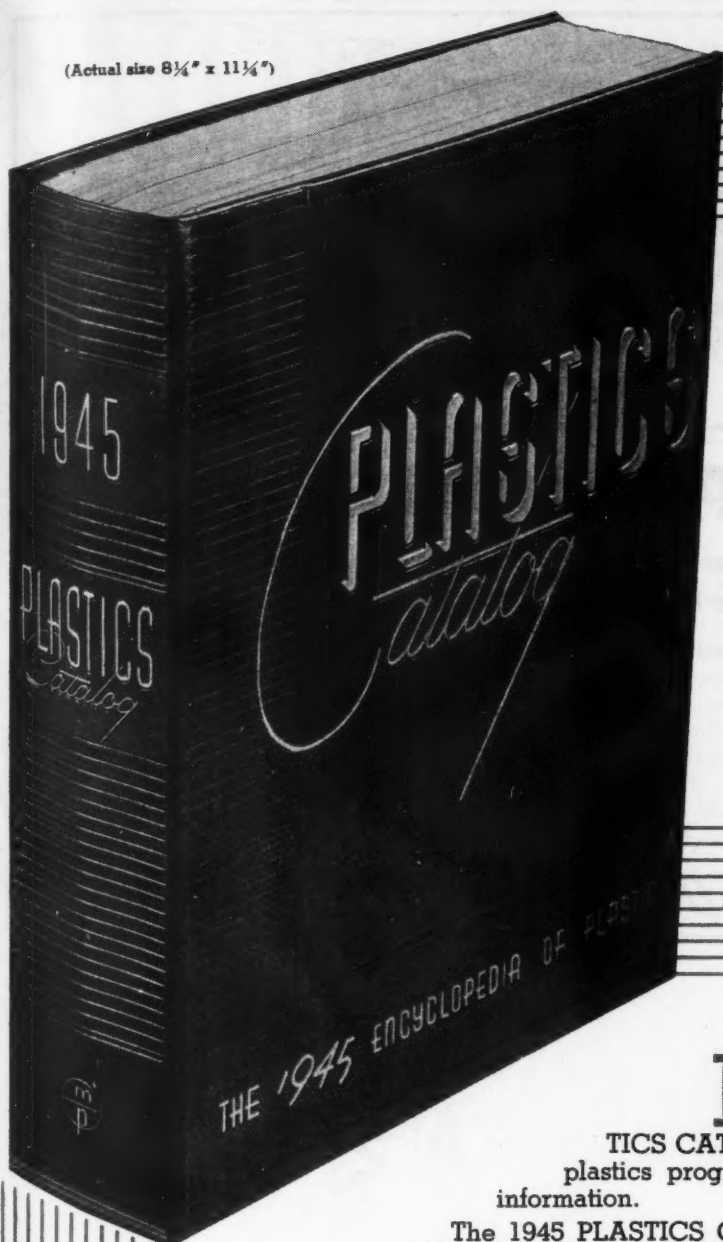


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Sprague-Sells Division

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(Actual size 8¼" x 11¼")



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Everyone who wants to know about plastics and who must keep up with plastics advances comes, sooner or later, to rely on the **PLASTICS CATALOG**—the only complete annual compilation of plastics progress combined with a full text of basic plastics information.

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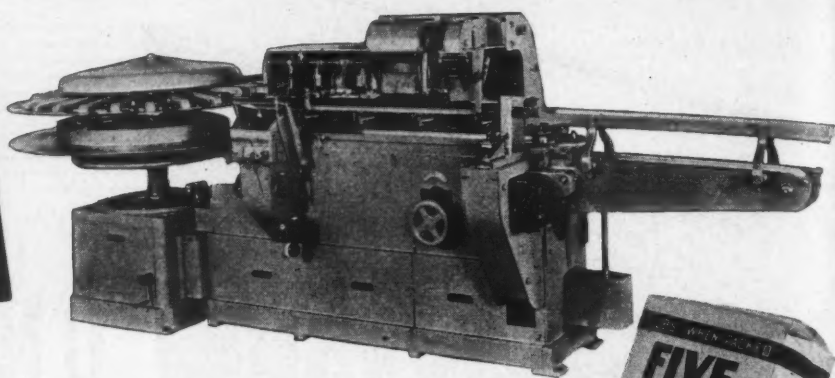
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## *Seals* **BAG PACKAGES** **FASTER with LESS HELP**

SEALTITE Bag Sealers pay dividends any time in increased production and reduced labor costs but right now the savings are greater than ever. SEALTITE seals any standard 2 to 10 lb. bag faster and with less help than it can be sealed by other methods.

The SEALTITE package is well settled and nicely square at top, bottom and sides. A most

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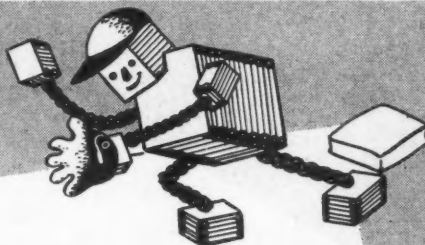
Since SEALTITE packages are sift-proof, they are ideal for sugar, salt, flour, coffee and similar commodities.

Write for complete information on this better way to close paper bags.



**CONSOLIDATED PACKAGING MACHINERY CORP.**  
BUFFALO, N. Y.

**TRIPLE PLAY**  
by  
**METAL EDGE**



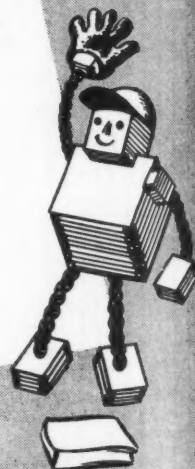
Among the rarest and most exciting spectacles of baseball is the triple play.

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- **MATERIAL HANDLING**
- **INVENTORY CONTROL**

Metal Edge's saving of plant space and labor, simplification of stock-keeping, and contribution to production efficiency, so convincingly demonstrated today in war work, may be equally important to you post-war.

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(Government Standards)

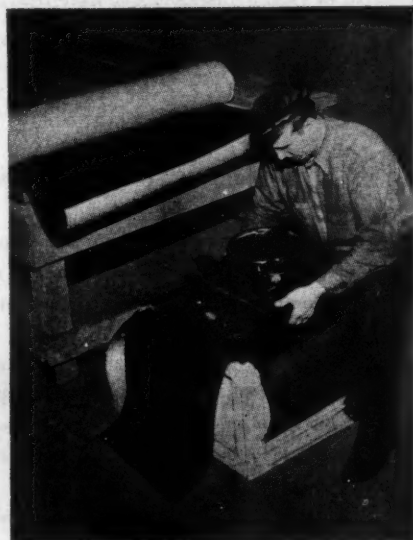
### FOR SPECIAL PURPOSES

#1—Box Lining—photo illustrates our special "Black and Tan" laminated duplexed paper and saturated paper being used in a typical box-lining protective application.

Other special sheets are  
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Ream Wrappers  
Saturated Papers

for

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| 1. Crate Packing | 4. Small Parts Packing |
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*National* WATERPROOFING COMPANY

FRONT AND BECKETT STS.

CAMDEN, N. J.

DUPLEX · SATURATED · REINFORCED · WAXED & OILED PAPERS

BUY UNITED STATES WAR BONDS & STAMPS

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The complete service offered by the Milgate line is available to meet your individual needs. Remember . . . our facilities for the development of these products, our experience in their production plus extensive converting equipment and experimental laboratories have been proven under war-time conditions. Let us figure with you on your requirements . . . send for samples of our recent design and fabrication.

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"Hot-Melt"  
Coated and/or  
Laminated Papers  
Pulp Boards  
Cellophanes  
Glassines  
Foil  
Acetates  
Cloths

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In "RED STREAK" Sealing Tapes you find a combination of good paper, good glue and plenty of it — that's the real answer to any sealing problem.

Ask your jobber for  
details, samples,  
prices.



"Red  
SEALING

"Streak"  
TAPES

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**WANTED:** Package Machinery Company CA-2 machines. Write full particulars as to age, condition, serial number, etc. Address Box 296, Modern Packaging.

**LEADING BRITISH MANUFACTURER** of Liners for Bottle Cap Closures interested in Plastic Coated Papers for Post-war. Samples and details to Box No. 307, Modern Packaging.

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The type of man we are looking for knows packaging machinery and has sufficient ability as an engineer to suggest adjustments or design new devices for automatic packaging operations.

He should be ingenious enough to develop new package constructions and make them work. He should have the personality to sell his ideas to top ranking manufacturers and work harmoniously with our company sales and product personnel.

If you can qualify, a big opportunity awaits you with one of the country's largest and most progressive organizations. Write Box 302, Modern Packaging.

**SALES REPRESENTATIVE,** 43; travel or New York City area; experienced in selling retail and manufacturing trade, packaging and accessories. Highest integrity. Box 305, Modern Packaging.

### UGLIEST DUCKLING NEEDS DOLLING UP!

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Manufacturing rights, patterns, drawings, etc., on Automatic Cellophane Bag Heat Sealing Machine. Also interested in other type of packaging machinery. Send particulars.

Box 304, Modern Packaging

**WANTED**  
**CORRUGATED BOXES—All Sizes**  
Any Quantity—Immediate Pick Up

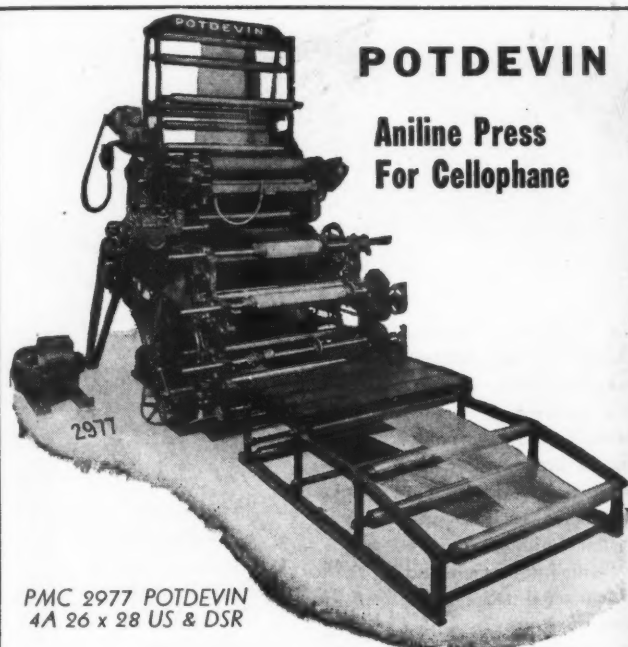
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### Aniline Press For Cellophane

PMC 2977 POTDEVIN  
4A 26 x 28 US & DSR

(Model 304)

4-Color Multi-length pigmented Aniline Ink Web Printing Press with Unwind, Slitters and Dual Shaft Rewind. Especially suitable for cellophane.

Note: Continuous drive for ink fountain rollers;—long, variable drying runs between first and second colors, also after last color before rewinding.

**POTDEVIN MACHINE CO.**  
1244 - 38th Street  
Established 1893

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*Buy Bonds*  
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## SNIP IT, SEAL IT, SHIP IT! *in Traco "All-Size" Bags*

**Tubular Form—1000 Foot Reels**

Make quickly in your own plant TITE-SEAL Cellophane Bags of any size that seal out dust, air, water and moisture-vapor. They protect military supplies from damage in transport or storage.

Acceptable for Methods I and IA, type III packaging . . . available in 3, 4, 6 and 8 inch widths under proper priority . . . 1000 feet to the reel. Saves stocking large quantities of special-sized bags. (Stock Bags also available in above widths.)

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Heavy foil-lined laminated bags or tubes meet every requirement of Methods I, IA and II Military Packaging. LOXTITE Partitions give crash protection to fuses, rations, and delicate or fragile items.

Reasonably prompt shipment can be made on government orders bearing end use. A card will place our technicians at your command.

T. M. Reg. & Patent applied for

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### Printed CELLOPHANE TAPE

For parts identification and many other uses. Saves time and trouble. Pressure sensitive. Available in small quantities. Prompt shipment.

# THE *Scott*

***For greatest possible operating simplicity and closest possible weight accuracy***

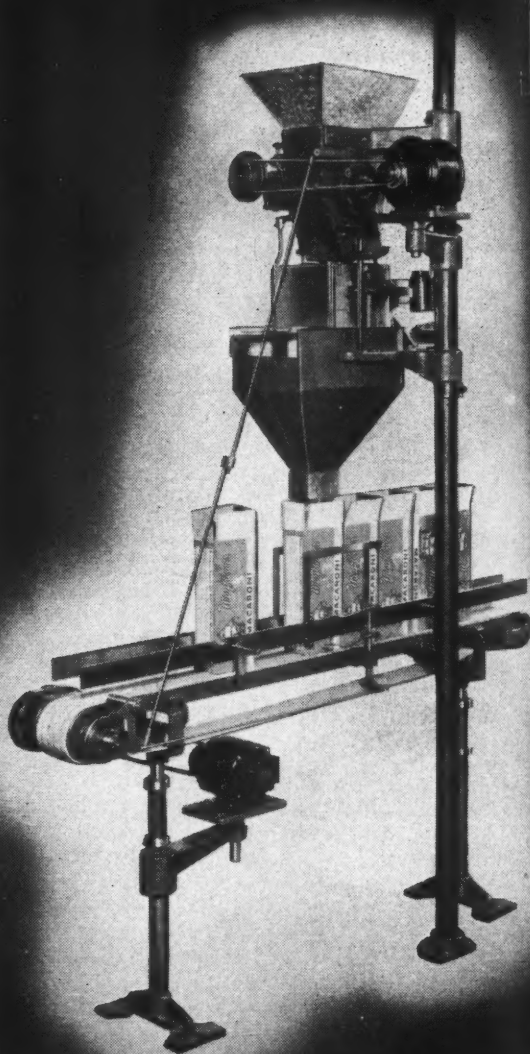
The Scott Automatic Net Weigher delivers containers to the net weighing unit on a straight line conveyor. A simple package control mechanism centers them in proper position under the discharge funnel of the weigher. The empty containers need only be placed on the conveyor and the filled containers removed, or, the filled ones may be run directly to another conveyor to carry the packages to other operations.

Various combinations of standard Scott scales and power feeders are available to suit the weight range and products being packaged. Absolutely free-flowing materials, such as rice, can be handled by the gravity feed scale alone, without using a feeder.

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## *automatic*

**STRAIGHT LINE  
NET WEIGHER**



Squirrel Brand Peanuts are weighed and filled automatically on the Scott Straight Line Weigher.



Send U.S. details on any of your packaging problems—we have the machines and the engineering background to help solve them.

*Automatic Box Machinery Co. Inc.*

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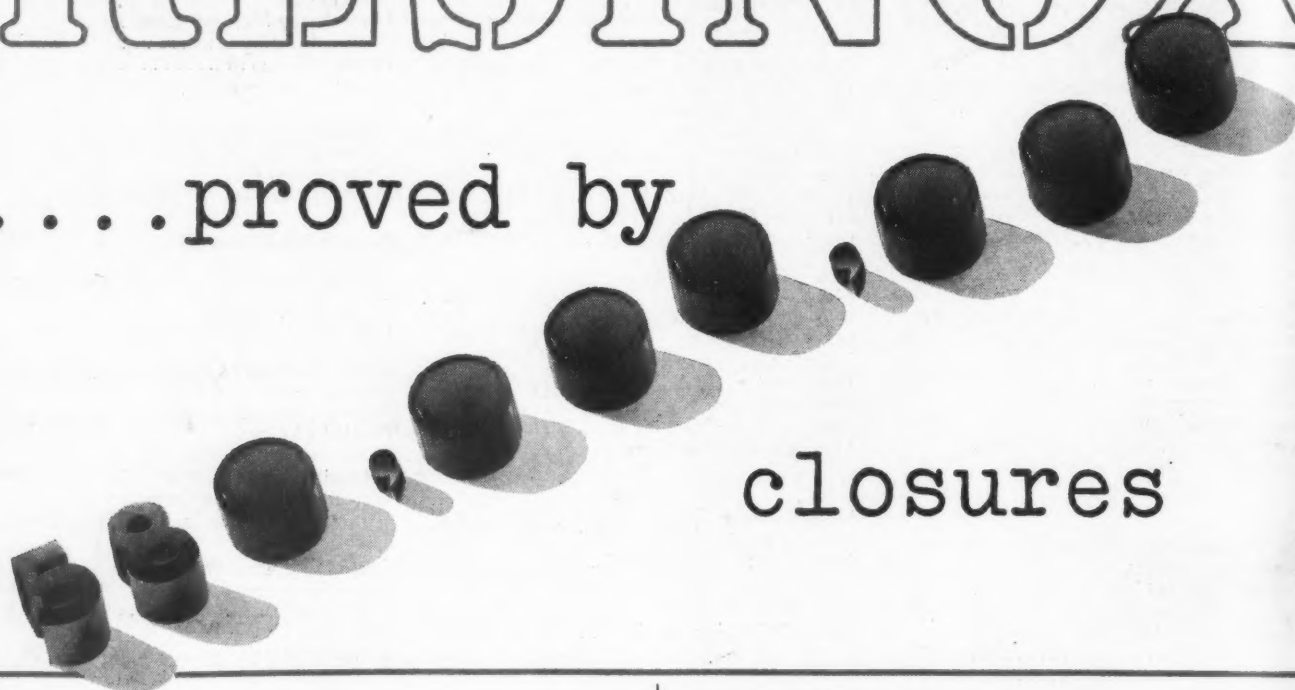
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**MODERN PACKAGING**  
**BRESKIN PUBLISHING COMPANY**  
**122 East 42nd St.**  
**New York 17, N. Y.**

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....proved by



closures

Yes, that's more than half a billion closures... molded by one Resinox customer alone in the last several years!... "proof of the pudding" that you can hardly go wrong when you specify this tough, practical phenolic plastic for your caps and closures.

These millions of Resinox closures, along with billions of other Resinox caps, closures, premium boxes, packaging components, demonstrate again these important Resinox plus-factors:

- ... rigidity and strength
- ... ready adaptability to high speed molding
- ... light weight
- ... molded-in color and decoration
- ... smart, lustrous styling

Monsanto thinks, too, that this kind of a record speaks well not only for the performance of the product, but also for Monsanto's service and supply through these years.

If you have a problem or plans for using plastics in packaging, why not avail yourself of Monsanto's long experience in a broad field of plastics? For either up-to-date information on Monsanto plastics or current supply situations, write, wire or phone: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Massachusetts.

## RESINOX-FOR-PACKAGING FACTS:

<b>Strength</b>	to perform in service and to resist strong torque forces of automatic capping machines.  Tensile strength—4200-8000 lbs./sq. in. Compressive strength—20,000-30,000 lbs./sq. in. Flexural strength—8000-12,000 lbs./sq. in.
<b>Stability</b>	Water absorption (after 24 hrs.) 0.01/ 0.06 effect of age — None.
<b>Heat Resistance</b>	Distortion — 240-275° F.
<b>General Properties</b>	Colors — Darker Opaques. Specially formulated materials for minimum odor and taste. Rockwell Hardness: M85 — M125

The broad and versatile family of Monsanto Plastics includes: Lustron polystyrenes • Cerex heat resistant thermoplastics • Vinyl acetals • Nitron cellulose nitrates • Fibestos cellulose acetates • Thalid for impression molding • Resinox phenolics • Resimene melamines. Forms in which they are supplied include: Sheets • Rods • Tubes • Molding Compounds • Industrial Resins • Coating Compounds • Vupak rigid, transparent packaging materials.



# IT'S HARD NOT TO LIVE IN THE PAST



We all like to dwell upon the past's triumphs; its good performances. And rightly so!

**BALL BROTHERS COMPANY** is proud of its wartime service—maximum production of the best possible containers under wartime standardization.

We pay tribute to the past, but we are making plans for the future.

After wartime restrictions are no longer necessary and individuality in packaging is again the watchword, we will be ready to furnish finest quality glass containers in modern attractive designs.



**B A L L**  
**BROTHERS COMPANY**  
*General Offices*  
**MUNCIE, INDIANA, U. S. A.**



YOUR POSTWAR PACKAGE

*Can* GIVE A DAILY WEATHER REPORT



Here's another example of wartime packaging miracles. The dehydrated package, commonly known as Method II, consists of a heat-sealable water-vapor-proof barrier containing a desiccant to absorb water-vapor within the package and an indicator to show at a glance the internal atmosphere and the need for renewal of the desiccant. Thus there is practically no limit to the length of time delicate and corrodable assemblies and mechanisms can be protected against mold, mildew and corrosion. *Tomorrow this will be a familiar package on shelves and counters throughout the world. Today Shellmar engineers are ready to adapt it to your needs.*

**SHELLMAR**

MT. VERNON, OHIO



*Products Co.*

Chicago • New York • Pasadena

CONVERTERS OF CELLOPHANE, PLIOFILM, CELLULOSE ACETATE, SARAN, FOILS, PAPERS, GLASSINE, LACQUER COATINGS, VINYL

